

# FLORIDA WILDLIFE



STEPHEN  
COWEN

STATE LIBRARY

JAN 18 1983

OF FLORIDA

January-February 1983

SHELVE IN FLORIDA ROOM

# THE SCIENCE OF WILDLIFE MANAGEMENT: *The Future of our Wildlife Depends on It*



## Research

The precarious future that many species of North American wildlife faced around the turn of the century provided the impetus for the establishment of our first wildlife parks and refuges. Though initially effective, these early efforts aimed at helping wildlife soon developed serious shortcomings. The concept of providing complete protection, including the elimination of natural predators, to certain species was successful in building up threatened herds of animals, including elk and deer; however, as early as the 1920s, populations in many areas were outstripping their available food supplies.

Such problems helped spur the rapid growth of the modern science of wildlife management. Early wildlife management professionals were the first to recognize the vital importance of vegetation and other aspects of the natural environment that supported wild animal populations. This new understanding of the relationship between wildlife and habitat helped

lead to the practical steps necessary to ensure the long-term abundance and health of certain kinds of wildlife.

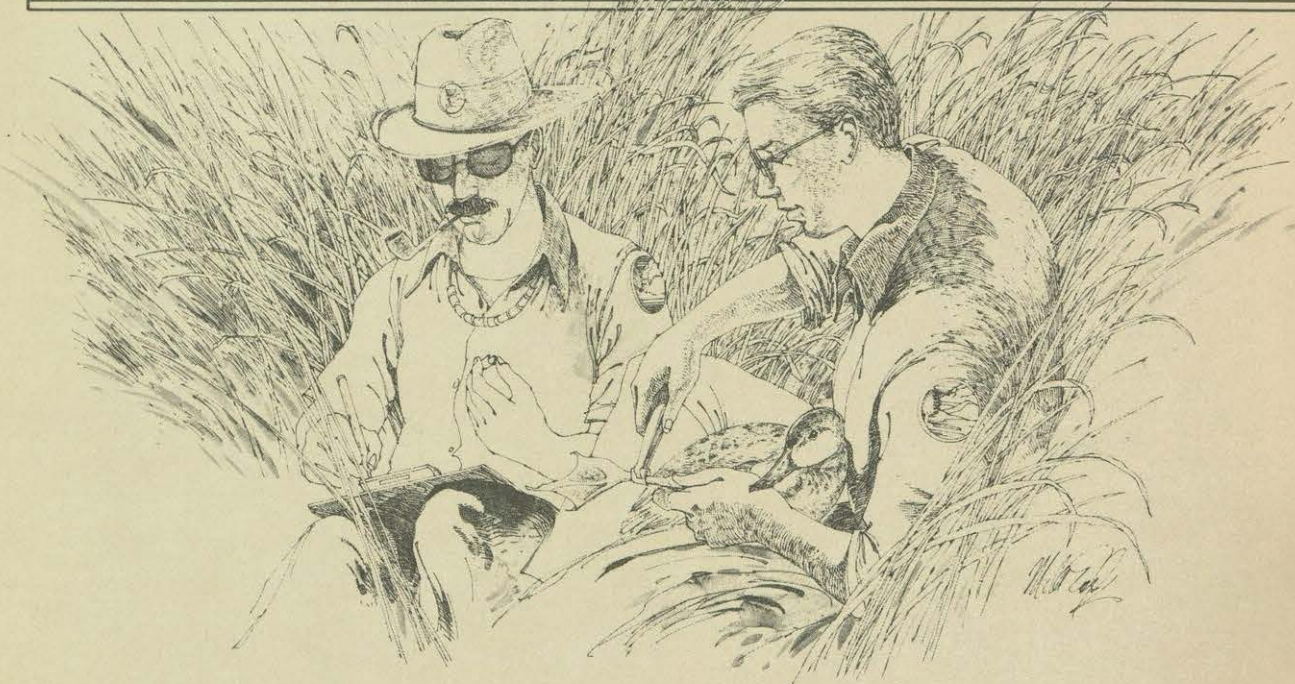
Extensive biological research is the foundation on which all management programs are built. Studies on animal numbers, their distribution, food preferences and the like provide a detailed picture of a species' needs and habits.

Bird banding projects, such as these, help determine a species' seasonal and local movements and can provide information on age, longevity and other vital characteristics important in developing successful conservation programs.

Over the years, it has been the American hunter who, through license fees and excise taxes, has provided the lion's share of the funds necessary for these conservation programs.



National Shooting Sports Foundation  
1075 Post Road  
Riverside, Conn. 06878



**Volume 36, No. 5**  
**January-February**  
**1983**

Dedicated to the appreciation  
and enjoyment of our  
wildlife heritage, and to a  
fuller understanding of efforts  
directed toward the  
protection, restoration,  
enhancement and wise use of  
our natural resources.

FLORIDA WILDLIFE (ISSN 0015-4369) is published bimonthly by the Florida Game and Fresh Water Fish Commission, Farris Bryant Building, Tallahassee, FL 32301. Single copy price-\$1.00, including state sales tax. Subscription rates, 1 year, \$5.00; 3 years, \$14.00. The Commission assumes no responsibility for unsolicited manuscripts and illustrative materials. Request for permission to reprint illustrations or text should be addressed to: Editor, FLORIDA WILDLIFE. Second class postage paid at Tallahassee, Florida, and other points of entry. Post Office Publication Number 202440.

Printed by Hillsboro Printing Co.  
Tampa

Typeset by Game & Fresh Water  
Fish Commission Word  
Processing Center



# FLORIDA WILDLIFE

Published by Florida Game & Fresh Water Fish Commission

## IN THIS ISSUE

- |                                                                |      |                           |
|----------------------------------------------------------------|------|---------------------------|
| <b>Myron Warr, Boat Builder</b>                                | -2-  | <b>Lynette L. Walther</b> |
| <i>He hadn't planned to make it a career.</i>                  |      |                           |
| <b>Make A Cedar Box Call</b>                                   | -8-  | <b>Max Hunn</b>           |
| <i>A master call maker tells how.</i>                          |      |                           |
| <b>Arukan</b>                                                  | -12- | <b>Morrie Naggia</b>      |
| <i>Our most common furbearer finds the living easy.</i>        |      |                           |
| <b>Crystal River Fishwatching</b>                              | -14- | <b>John Foster</b>        |
| <i>It's akin to birdwatching but the locale differs.</i>       |      |                           |
| <b>Winter Serenade</b>                                         | -18- | <b>Paul E. Moler</b>      |
| <i>Declaration of their ardor makes the welkin ring.</i>       |      |                           |
| <b>A. Milliken, Photographer</b>                               | -24- | <b>Morrie Naggia</b>      |
| <i>He violates the rules with great results.</i>               |      |                           |
| <b>Bluebird Weather Duck Hunt</b>                              | -30- | <b>George X. Sand</b>     |
| <i>Even a so-so hunt can be enjoyable.</i>                     |      |                           |
| <b>Hidden Treasures</b>                                        | -34- | <b>William Smith</b>      |
| <i>The search can pay off for any avid fisherman.</i>          |      |                           |
| <b>It's The Law</b>                                            | -37- | <b>Dave Swindell</b>      |
| <i>The reason for the law may not be readily understood.</i>   |      |                           |
| <b>Hunting Preserve</b>                                        | -38- | <b>Chris Madson</b>       |
| <i>You're sure of finding shooting on a well-managed area.</i> |      |                           |
| <b>Jungle Mother</b>                                           | -41- | <b>Dean Morgan</b>        |
| <i>There's danger at every hand in the Florida wilds.</i>      |      |                           |

- |                           |      |                         |      |
|---------------------------|------|-------------------------|------|
| <b>Fishing</b>            | -5-  | <b>Hunter Education</b> | -44- |
| <b>Conservation Scene</b> | -46- |                         |      |

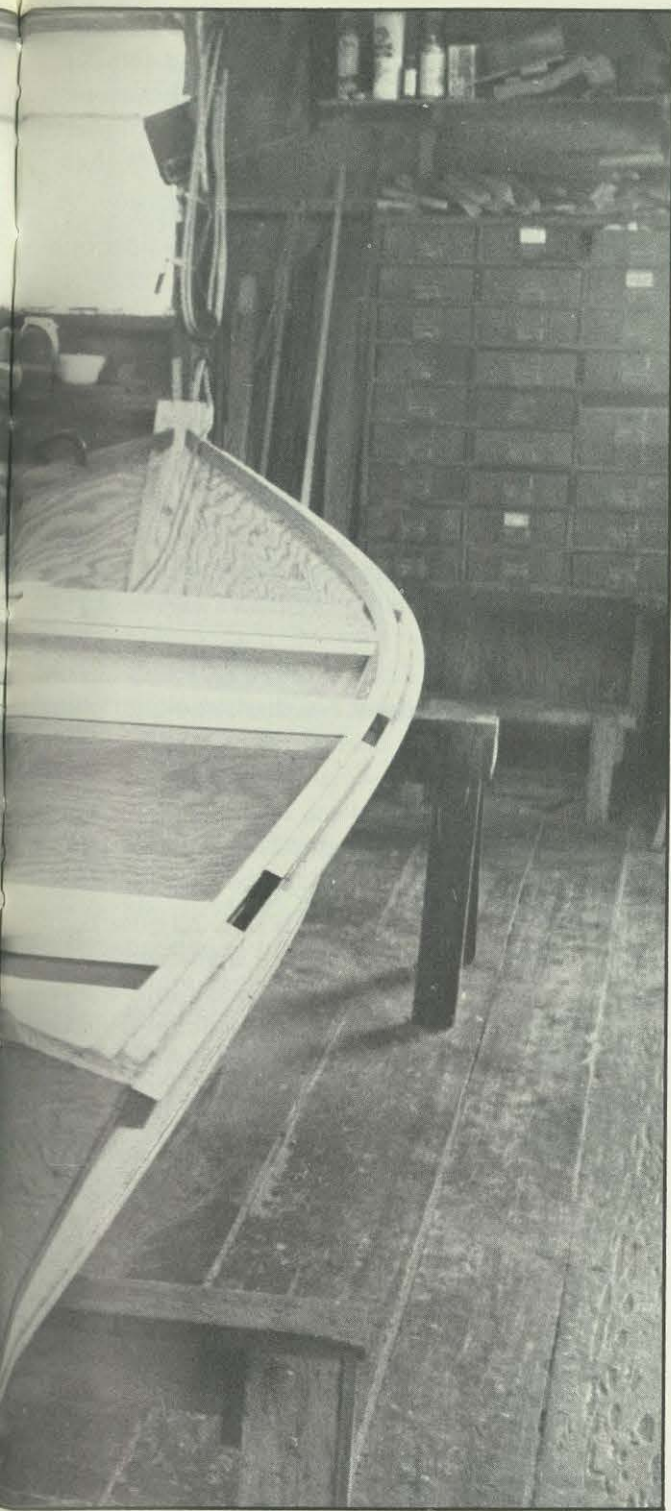
## THE COVERS

"Tiger of the Air" is an apt description of the horned owl. Slipping about the woodlands on silent wings, it is the nemesis of a great variety of small creatures upon which it preys.—From a painting by Stephen Cowen. The marsh rabbit, shown on the back cover, is an aquatic-minded close kin of the common Eastern cottontail. Both animals are important food items in the diet of the horned owl as well as many other winged and four-footed hunters.—Photo by Cliff Bickford.



Warr at work in his one-man boat shop.

# MYRON B. WARR, BOAT BUILDER



Bob Walther

## By Lynette L. Walther

boat builder who immigrated to Florida in the late 1800s.

"My father was a boat builder in New England. He came down here to raise oranges. That was just before the big freeze of 1896," says Warr, a soft-spoken man whose voice is laced with a southern accent. "It changed the whole future of Florida."

The freeze changed the elder Warr's future, too. With the failure of the north Florida citrus industry, a devastating force on the economy of the area, Edward Warr found himself building boats in his new Florida home. But unlike his father, Myron Warr was not interested in boat building, at least not then. That came much later.

"I never built a boat until about 27 years ago. I just built one for myself and people liked it," Warr said, explaining the act that ultimately changed his life. "I'm sorry I waited that late. I love boat building. I guess you just have it in the genes."

Warr's one-man boat shop is built out on pilings over the St. Johns River. As Warr works, the tea-brown waters of the river are never more than a few steps away and the boat builder can hear the whine of outboard engines, on commercial fishermen's boats as well as on bass boats, from further out on the river. Many of those boats traveling the watery road were built by him.

Once the word got out of the good handling characteristics and durability of Warr-built boats, the orders started pouring in. They came from all over the Southeast, from Georgia, South Carolina, Mississippi and Florida. One of his boats was flown to Colorado, purchased by the owner of a whiskey company. But Warr figures that two-thirds of the 2,000 (or more; he's lost count) boats he has built are still in use on the St. Johns River between the bass fishing resort area of Welaka and Jacksonville.

"I made one boat that became infamous, not famous," said Warr who disclosed that one of the tough little boats he built was used by its owners in an illegal commercial fishing operation. The black speed demon, as he refers to it, had two 150-horsepower motors mounted on the stern and was reported to have been able to travel in excess of 90 miles an hour. The illicit fishermen managed to outrun the authorities for a while, but in the end were fingered by enforcement officers using infrared cameras mounted on a bridge. The boat graced the cover of a magazine, a dubious distinction in this case, and at best, Warr is sketchy when it comes to giving details about it. He clearly does not approve of the use one of his boats received, but remains a little

**M**yron B. Warr has built wooden boats on the shore of the St. Johns River in Welaka for the past 27 years. A backlog of boat orders attests to the fact that his boats, and indeed the individualistic boat builder himself, have become legends, not just in this area, but all over the South.

You can't talk about the man without talking about his boats. They are that much a part of this northeast Florida native, the son of a New England

# BOAT BUILDER

proud of the obvious strength of construction the renegade possessed.

Sometimes compared to other traditional Florida commercial fishing craft, like the Okeechobee boats or Apalachicola net boats, Warr's boats contain elements of both designs while not being like either. The design evolved from the special demands imposed on a St. Johns River boat by the river conditions and the fishing methods employed there.

Over the years, Warr's designs have changed as he refines his craft.

"They've changed quite a bit. As a matter of fact, the first boats I built had a one- or two-inch rise in the bow. Now they have 12 to 14 inches. It makes for a safer running boat in rough water. It just rides the waves, not digging in at all. The earlier flat-bottomed boats would dive into a wave and not rise up. I know that from experience. They'd really submarine.

"As the motors got bigger, the boats had to get stronger," he said of structural reinforcement changes. He commented on the current generation's unseemly haste. "Everybody wants to go 75 miles an hour. Apparently those bass are getting pretty fast.

"They're strictly my own design," he said of the 14-, 16-, and 18-foot boats. "They have flat bottoms. They're stable; they don't rock and tip and are used to work and fish from.

"For a while all I sold to were commercial fishermen. But now it's 50-50. A lot of bass fishermen are going to my boats for some reason," the solitary boat builder mused.

When he first began building boats, the accepted style was one with a flexible bottom. "They thought they had to have a soft bottom, called it a cushion bottom," he explained. "Those boats didn't last long. They loosened up all over."

Planned obsolescence or not, Warr didn't want any part of it and he showed local fishermen they would be better off with boats that had solid, reinforced bottoms.

"I don't use a jig at all," he stated as he went over the construction sequence (acquired through trial and error) of one of his 16-foot runabouts. "Most people put the bulkheads in and then bend the sides around them. I never could make it work like that. I put the sides on the stem and stern first."

Beginning from the bottom up, so to speak, Warr starts construction with his boat upside down and then, using a swivel system he rigged up with a block and tackle attached stem and stern, he turns the boat over and back upside down as he progresses during the construction. It is turned about 20 times before it is ready for the river.

After 26-28 working hours, six pounds of nails, five pounds of glue, lots of plywood and lumber, Warr has completed one of his boats. About one-half of his customers prefer to take delivery of their boats unpainted. Many used by commercial fishermen are painted black or dark green.

The boat builder likes to tell the story of how one of his boats made it through a hurricane.

"It was 14 years ago and a hurricane came up the river. One boat became caught sideways in the boat slip and would have torn the storage shed down. We pushed the craft out into the river and it floated through the hurricane," Warr said of the boat that was later found bobbing along in the St. Johns.

"One boat went through a neighbor's shed and ended up on the lawn without any damage," he said of another of the boats he built that survived the hurricane.

"I work by myself. I like it that way. I stay about six months behind that way, but that's all right," said the boat builder. Warr doesn't play favorites or let himself be influenced by customers who want their boats sooner than his waiting list demands. It's a first-come, first-served system. That rule was only broken once and to this day he regrets the incident.

Several years ago a customer brought a boat back to him, one he had built for the man some time before. The man asked if Warr could build a live-well in the boat. Warr told the customer he could do the work, but he wouldn't be able to get to it for a month or so since he was behind on several orders for new boats.

But the impatient boat owner said he needed to have the well installed that day. He pulled out his wallet and offered Warr \$300. Now would he build the well?

"I did it," Warr said of the job that cost him dearly in self esteem. "But I've regretted it ever since. I don't like to feel that I can be bought like that."

At 64, Warr now seems to be facing a situation much the same as one his father must have faced so many years ago. Although Warr has grandsons, they aren't interested in learning the craft of wooden boat building and, to date, he hasn't trained a successor. There were a couple of young men who were interested, but he said they came and went once they realized the little boat shop did not lead the way to fortune.

"I don't think anybody's going to carry on. They realize that you don't get rich doing it. You've just got to like it," said Warr, a man far richer than he may realize.

"But I have no plans to retire. I love my work," said the builder of wooden boats. □



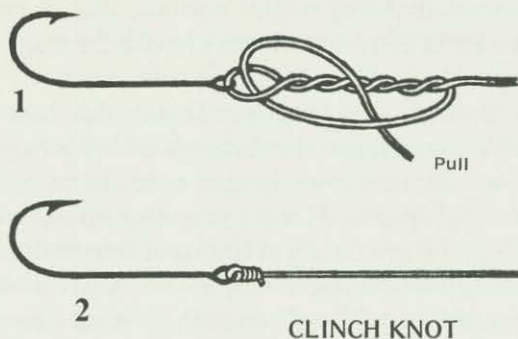
## Tying The Knot

**V**ery few fishermen have had as much experience as I have with line and leader knots because I have learned to tie most of them several times and have learned some as many as 25 or 30 times. Then too, I often foul up and tie the same one twice.

Since this experience should make me an expert I have a few delicately chosen words on the subject. I have no new knot to describe but I have some wistful advice for others who are known to forget necktie loops and occasionally find a finger tied in with a lure.

Excellent books have been written on knots and innumerable articles have endeavored to simplify things. There have been endless diagrams of both well-known and exotic knots—most of which humiliate rather than inform me. I just don't learn knots easily and once I have memorized one I'll forget it within a few days if I don't use it. The bowline, a basic fastening for sailors, has tormented me for 40 years. After using it without thinking about it for a year or two I'll start to tie up my skiff one day and find it comes undone—generally when someone is watching.

Unless you have a knack for it and get fun out of tricky bends and hitches, the main thing is to concen-



trate on a few basic models—preferably simple ones—and do them carefully.

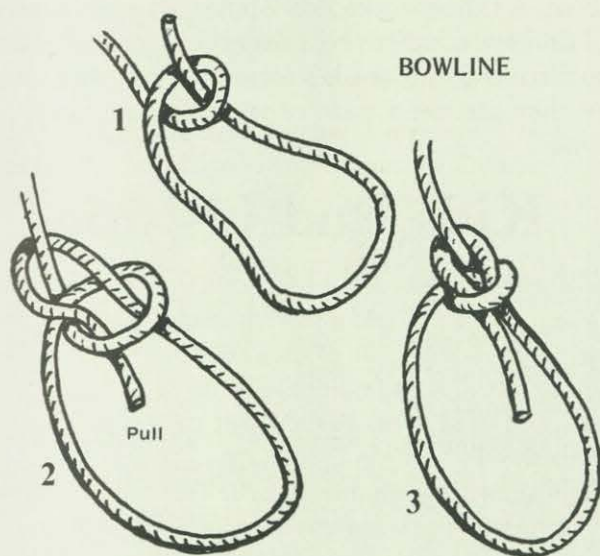
The fact is that some highly successful anglers don't even know some of the best-known knots. In asking tactful questions about their use of knots I found two highly experienced offshore anglers who didn't know how to tie a Bimini twist and said they'd never needed it. On many coasts it is considered as basic as the box lunch.

Misery is somewhat allayed by knowledge of a few isolated anglers who are more knotless than I. I know one fellow who recently retired and has used the same fishing buddy for fifty years. *Fifty years.* The fishing friend has tied his knots for him all of that time. Few of us can get by that way. And now, some advice from a real fumble finger.

Make sure the knots you use are basically strong ones. You can find the percentage strengths of given types and you should start out with something that holds pretty well, but although many connections have high-percentage holding power, not one out of a dozen knot failures, especially in fresh water, comes at anything near its optimum strength. Generally, failure, especially with monofilament, is a "working" or "creeping" knot, an insidious ailment that develops over considerable time and use.

We tend to gloss over the oft-repeated instruction to "snug up" knots and the final tightening may not be as simple as it sounds. The response of materials differs widely and I got my comeuppance last summer when I was using some very small and very soft monofilament.

For attaching a lure or fly to a monofilament line or leader, I generally use the improved clinch knot (if



you use something else, don't bother to look this up). This is a good tie, no better and no worse than some others. Basically, it's a simple knot with an extra "looparound" to add stability, but the more "extras" you use, the more carefully the whole works must be snugged up. Anyway, a fish of no particular size or importance got away and my line had the embarrassing telltale curlicue that showed the knot had pulled out. Then I hooked a snag and came up with another curlicue.

So I tied on lure Number Three (this can get expensive), gave it the usual couple of brisk tugs to see it was okay and then gave it a steady pull. The knot crawled apart and I had a plug in one hand and a curlicue in the other. It was impossible to make the knot hold unless I snugged it up *as I finished each stage* and a tentative tug wasn't enough. It took a steady pull. Such maneuvers hadn't been necessary with some other line I'd been using and I'd been getting gradually sloppier.

Some knots work loose very slowly. You might land a good fish with one and then have it give way on something very small, or even during a cast. In most cases the line wasn't "weakened" on the first go-round but the knot had been sliding a little all of the time. When the tag end is trimmed off too short, an otherwise usable knot might eat the very short tip.

If you leave some extra tag end you may see it crawl a little and then stop as you pull hard. It's smart to check the tag end now and then and leaving a little extra can save trouble even if it isn't neat. Moistening monofilament before pulling it tight may not always be necessary but can help with the more complex ties.

The more complicated the knot, the more it must be worked up in its various stages. You can sometimes get into trouble by putting in extra turns "to be sure." So much friction in tightening it that you can't do a good job.

Some of this knot "working" is a really long-term thing. I fish a great deal with spliced fly leaders (tapered) and usually cut the tag ends close to prevent snarls. About every six months one of them gives way up in the heavy part—no breakage, the knot just finally loosens up. This is simple carelessness but I expect to view the same thing again.

## Smallmouth Bass

Last spring we fished some smallmouth water on the Shenandoah River in Virginia, the kind of thing I hadn't done for some time, and something that gets

very little attention in most of the U.S. these days. It was largely smallmouth rivers that were dammed to make the big impoundments of 40 years ago and thereabouts and the impoundment smallmouths became primarily deepwater fish.

The Shenandoah suffered from chemical pollution, and for a time it was illegal to eat fish caught there—then for some reason they lifted the ban despite insistence that mercury is still a problem.

Light tackle fishing for river smallmouths is a sort of halfway point between freshwater trout fishing and largemouth bass. Admittedly, there aren't very many big fish in the southern creeks and rivers and it's the method that makes it fun—wading or drift fishing on moving water.

Most of my recent smallmouth fishing has been with flies, although spinning or light baitcasting tackle are just as productive, and sometimes more so. Most of the Shenandoah fish are no larger than Florida bluegills but there are three and even 4-pound smallmouths in that river, and things are spiced up by plenty of sunfish.

I've heard that river smallmouths are as particular as freshwater trout but I haven't found it that way. Fairly small bass bugs are good when they'll take on top. Hair bugs are especially handy when you choose a light fly rod since they're easy to case. I've been addicted to smallmouths, even the little ones, since before they dammed the hill country rivers of Missouri and Arkansas.

Harry Murray, the Virginia fly merchant, does especially well with nymphs and streamers drifted along the bottom—most of them dark-colored creepy-crawlies, some with rubber legs or whiskers.

I am not selling Virginia smallmouthing to you but the mountain rivers are beautiful, smallmouths strike hard and you can just wade in if you don't have a boat. A canoe works fine. Spring is a good time.

I find few southern bass fishermen who go to the northern U.S. or Canada for a try at the bronze kind, but they can get a taste of it somewhat closer to home.

## Kids And Fishing

Fishing contests, of whatever kind, are fine for consenting adults, and although some can get a little apart from what most of us go fishing for, they are here to stay. I make no crusade for or against them but I have had some beefs about children's fishing competition.

I think turning a bunch of prize-hungry kids loose on some sort of rigged catchout pond gets them off to a bad start. The thing turns quickly into a matter of dead fish only with method subordinated to

results and I doubt if this produces many nature lovers.

The world seems filled with people who want their children to become anglers and don't know how to go about it. Fishing enthusiasm is not necessarily hereditary and there are some very simple rules about attracting the kids.

First, they should be taught some sort of fishing skill (however simple). Learning to cast adds to the glamour. Good tackle is an attraction.

The fish catching should be neither too easy nor too hard. Several completely unproductive trips can pall on a youngster, especially if the hours are long. You need *some* fish. Hauling a bucketful of panfish from a bedding area, on the other hand, can be too easy. I knew one guide who took his five-year-old to a place where he could wrestle big snook almost constantly. Turned the kid off completely.

Charles Waterman



You must have challenge but not necessarily competition. You need some fish but not too many. You can take it from there.

## Danger! The Sun

Dangers of the sun are finally getting their due attention, many years after Florida fishing guides and other outdoorsmen have taken a beating from skin cancer in its various stages. Most fishermen now understand the number ratings of the various sun shields that formerly were simply lumped off as "sun lotion." The number or "sun protection factor" is important. If it's eight, for example, you'd get an eighth of the sun you'd have without it.

Fishermen get extra sun because they have the water reflection as well as the direct rays. Although most of them now believe in some sun protection, few will forego a "healthy tan" for safety.

There are some lotions that are popularly supposed to be "complete" protection—that is, the sun isn't supposed to get through at all. If the rating on the bottle is fifteen it's intended to protect you completely. Now, in theory, you wouldn't even get tanned while using such dope.

Treading softly on a subject I'm not qualified in, I submit that I seem to tan through some protective stuff at fifteen—no burn, just a bit of tanning action. If your dermatologist says you're not getting enough dope on, he may be right, but if a "fifteen" allows only a fifteenth of the normal rays to reach your hide, it could still pass enough for tanning. You can cook in an hour and daylight can be 15 hours long.

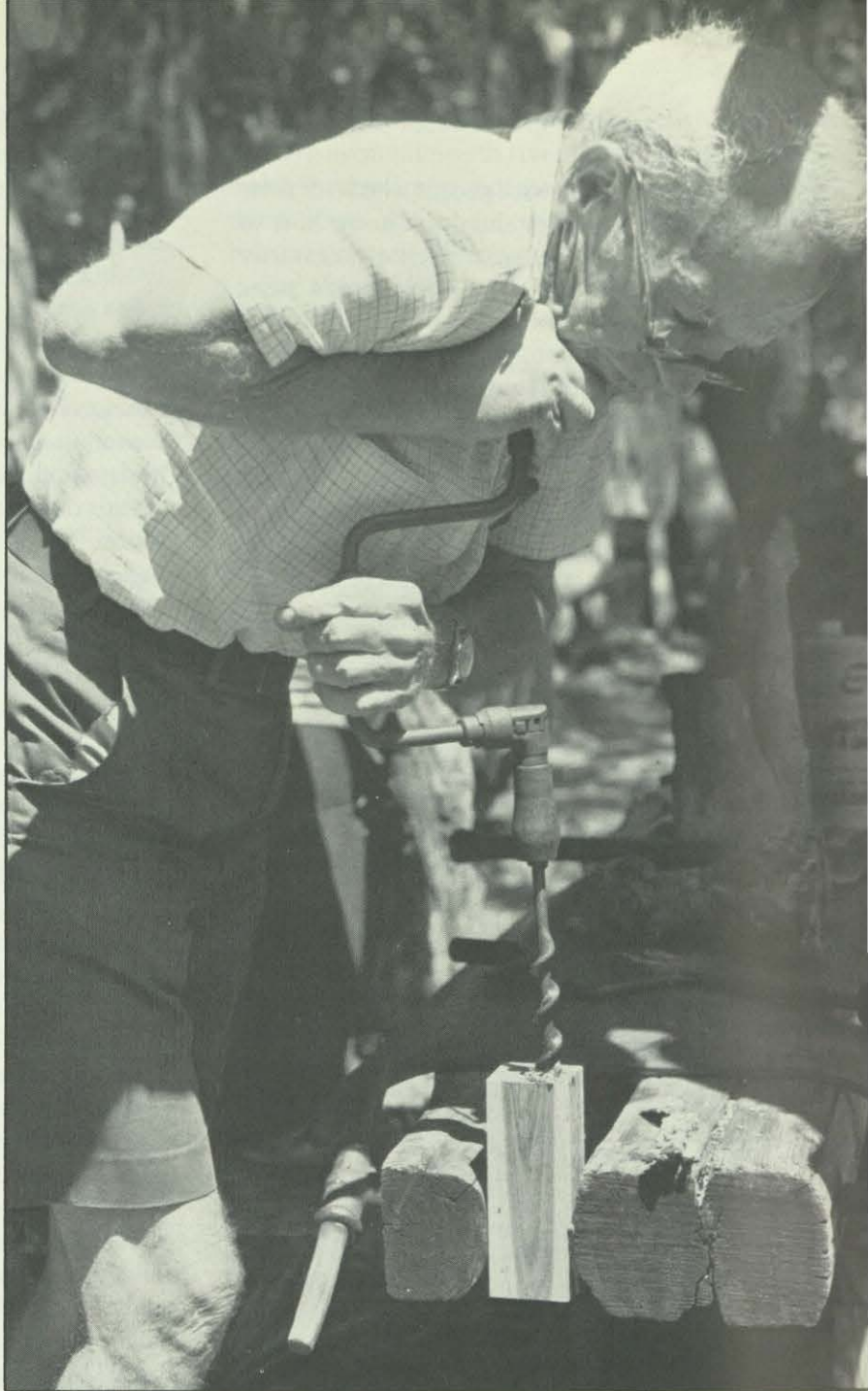
Incidentally, if you're allergic to one solution it doesn't follow that another will produce a rash too, even though the chemical contents are quite similar. Keep trying and you may find one that works for you. I had trouble with a couple and then found one that seems to cause no harm at all. It would be unfair to use trade names as what's good for me might not be good for you.

Some of these chemicals are hard on certain plastics and wood finishes. And be sure to keep them out of your eyes, being especially careful when perspiration carries the stuff off your forehead. There are some solutions that are reasonably waterproof. Use a little common sense. Nothing's perfect. □

A budding fly rod fisherman. This youngster's fish is no whopper but he caught it on an artificial.

# Make A Cedar Box Turkey Call

By Max Hunn



1

Photos by Kit and Max Hunn

Wherever turkey hunters gather, sooner or later the subject of turkey calls and calling is discussed.

There're numerous calls on the market, and all will work in the hands of a skilled hunter. Some are widely advertised in hunting magazines. Some are known only locally, while others are known nationally as the result of word-of-mouth advertising.

The latter is the case with a famous cedar box call made by Tom Gaskins, who lives on the edge of Fisheating Creek Swamp near Palmdale.

His cedar calls are known throughout the country, but he hasn't advertised them since the 1950s. Gaskins is an avid turkey hunter. He's hunted the wily birds all over Florida, particularly in the Fisheating

Creek Swamp west of Lake Okeechobee, and in the Big Cypress swamp in the southern end of the state. Through the years, he's become an expert turkey hunter, caller, and turkey call maker.

Since making his first cedar box call in 1946, he's produced some 15,000 or more, and learned the quirks of making a call that will fool a wily, crafty old gobbler.

When he started manufacturing his calls, he advertised in the outdoor magazines, and built a sizable mail order business—too large for a one-man operation, he decided.

Thus he stopped advertising, but word-of-mouth keeps him making them as an adjunct to his cypress knee business. He sells cedar calls to hunters wher-

ever gobblers are found in the U.S. He's sold them, and still sells them, to hunters from New York and Pennsylvania to Minnesota, Mississippi, Alabama, Georgia, the Carolinas, Texas, and, of course, Florida.

While he does some wholesale selling, the bulk of his sales is to those turkey hunters lucky enough to know his address, or get it from a friend. You can't get it from advertising anymore. However, he's not really trying to keep it a secret—just keeping down the demand for his special, hand-made calls.

Recently we stopped to see Gaskins and his wife, Gin, who've been our longtime friends. Naturally, the conversation drifted around to turkey hunting, and I'd always been curious whether or not the average turkey hunter could make a call similar to his.

"Tom," I remarked, "You've made thousands of turkey calls, and you still sell them. I know you've pretty well mechanized your operation in order to get speedy production. But could the average turkey hunter make a call similar to yours without special equipment?"

"Yep," he replied. "It'd be no problem. He couldn't make one as quickly, but then he wouldn't need to be speedy.

"He could make a call that would be just as good if he knows what a good turkey call sounds like. But then that's the secret of using any turkey call. If you can't make it sound like another turkey, you aren't going to call many birds within gun range."

I pondered his statement a moment, and then asked him how long it would take for an ordinary hunter to make one.

"Not long," he replied. "I'll show you in two or three hours tomorrow. You can take step-by-step pictures of the operation. I'll use ordinary tools that the average hunter can handle."

The next day, I watched him make a cedar turkey call. When he was finished, he had a call that was identical to his standard one. When he finished tun-

ing, it sounded identical in tone. It's possible to make a cedar box turkey call without too much effort, if you have any ability to work with wood.

The initial step was obtaining a block of cedar wood 6 inches long by 2¼ by 2 inches. Gaskins cut the block from a larger piece with a handsaw, although normally he would have used a power band saw.

He prefers to use cedar, although he has experimented with other woods such as spruce, cypress, and fir. He's found that cedar, particularly in the tone board, produces the most consistent call and is an easy wood to work.

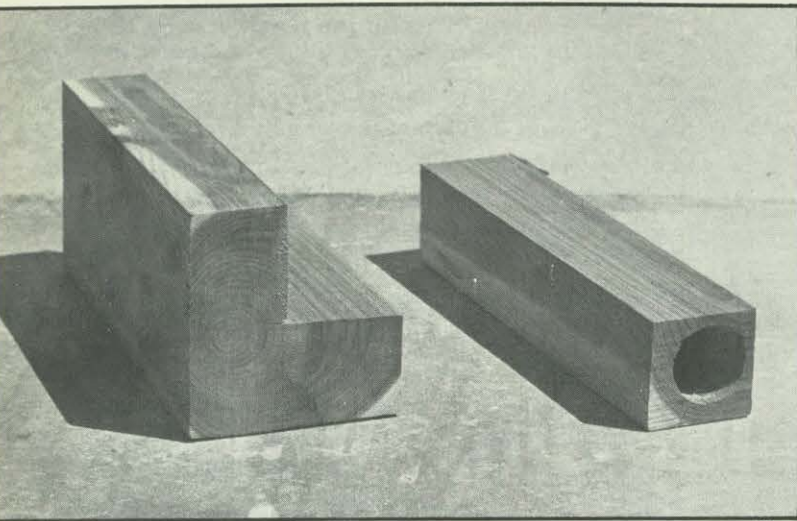
The next step is drilling a hole through the 6-inch block. You can use either a ¾- or 7/8-inch drill bit. He used a conventional brace and bit. The hole becomes the sound chamber of the completed call.

Later, one end of the hole is permanently sealed

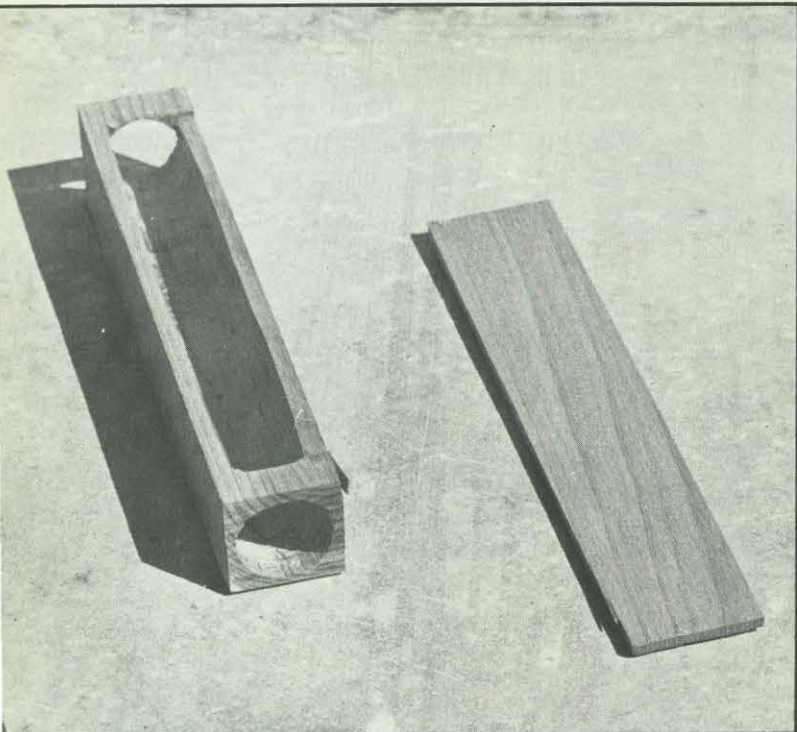
2



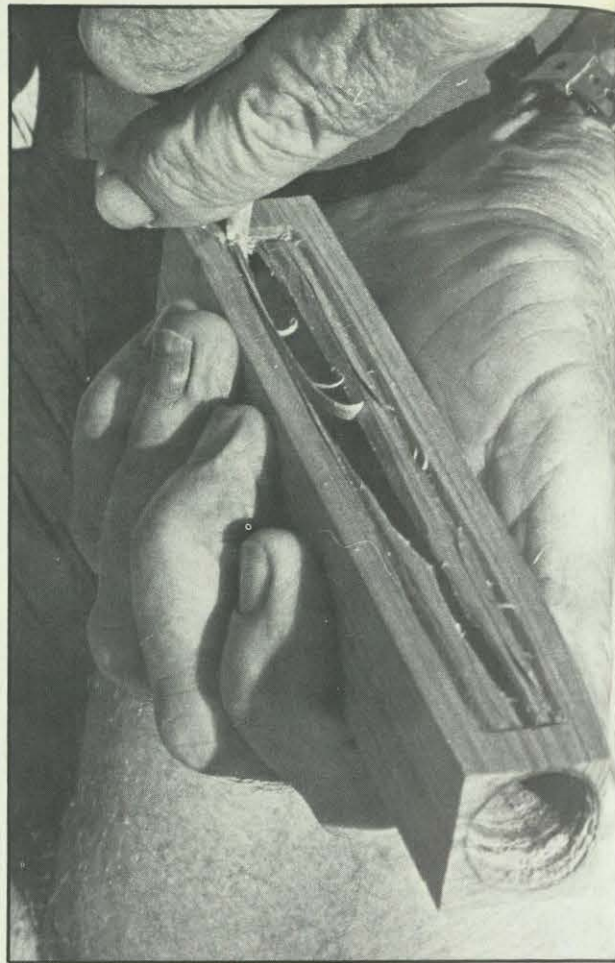
(1) Begin with a block of cedar 6"x2¼"x2". Drill a hole with a ¾" or 7/8" bit in one corner of the block. It saves time and sawing to drill off center. Tom Gaskins is shown drilling with brace and bit. Now cut out the actual size of the turkey call (2). Line up the saw blade carefully.



3



4



5

(3) Call after cut from main block. Trim all four sides around the hole to a thickness of  $\frac{3}{32}$  of an inch. (4) Carve open one side with a knife, leaving about  $\frac{1}{4}$ " at each end and  $\frac{1}{8}$ " on the two sides. On one edge, to a depth of  $\frac{1}{16}$ ", carefully carve opening for sound slot. (5) The rough call and tone board (right).

## TURKEY CALL

with a cork glued in place, while the other end is closed with a cork stopper that can be removed. The sound chamber also is used to store the chalk and striker when the call isn't being used.

Then, you line up the hole with your saw blade and cut the block to get a  $\frac{3}{32}$ -of-an-inch thick wall on each of the four sides. The thickness of the wall is an important factor in the effectiveness of the sound chamber.

Next, carve out one side of the sound chamber, leaving about  $\frac{1}{4}$  of an inch at each end and  $\frac{1}{8}$  of an inch on the sides. Over this opening, the sounding board eventually is glued.

On the side of the opening where the sounding

board will be glued, carve a slot along the length of the block about  $\frac{1}{16}$ -inch in width. This space is necessary to permit the tone board to vibrate properly when stroked.

From another piece of cedar, you make the tone board. It should be 6 inches long, 1 and  $\frac{1}{8}$  inches wide, and  $\frac{3}{32}$  of an inch thick. Using waterproof glue, fasten the sound board on three sides of the opening in the sound chamber, and in such a manner that  $\frac{1}{8}$  inch extends above the slot for the sound board. The sound board extension is sloped about  $1\frac{1}{4}$  inches at each end by carefully cutting with a sharp pocket knife.

After the glue has set, firmly positioning the sounding board on the call, the round top of the tone board is smoothed with sandpaper.

Now the call is almost complete except for the striker. This, too, should be of cedar. The striker should be 3 inches long and  $\frac{5}{8}$  inch square. Round one side of the striker and sand the rounded side with coarse paper leaving it slightly rough. This is necessary for the striker to "grab" the tone board when the call is being stroked. You do not want the curved surface of the striker to be perfectly smooth.

Now the most important step—tuning. Sometimes the finished call will have the perfect tone, but more often than not, it will require some tuning.

Coat both the striker and the sound board with chalk, using carpenter's (not school room) chalk. The latter contains wax which won't work with a turkey call. Then test the tonal quality by striking the sounding board.

If the tone is too high, enlarge the notch on the end of the sound board to provide a deeper tone. However, be careful to cut only one end at a time, for the adjustment is very delicate. You can cut away approximately  $\frac{1}{16}$  inch only. If this doesn't work, then the tone board will have to be thinned. Do this carefully, by using a piece of glass to scrape the sounding board. Don't make any radical changes, just delicate ones until you hit the "love note call."

Sometimes thinning is easy, requiring only a little shaving with the glass. Sometimes it requires several shavings. It all depends upon the character of the sound board wood.

As a guide, you can follow these rules: You can go from high to low by removing wood, or increasing the size of the striker. (Sometimes, it's easier to make a new striker rather than to engage in extensive tun-

ing.) But you can go from low to high only by reducing the size of the striker.

It's possible to remove too much wood from the tone board. If this should happen, then the only thing to do is start over with a new board, and tune it until you have the right tone.

"At times, a turkey will come to almost any call," explained Gaskins," but the most successful call has just the right tone.

"Turkey hunting is not a matter of hit or miss calling. There's a tonal range that's magic with turkeys. It's hard to pinpoint, but an experienced turkey hunter can recognize it.

"There's no doubt the real secret of making an effective turkey call is in the tuning. After all, if you're going to imitate a turkey, the call has to really sound like a turkey's."

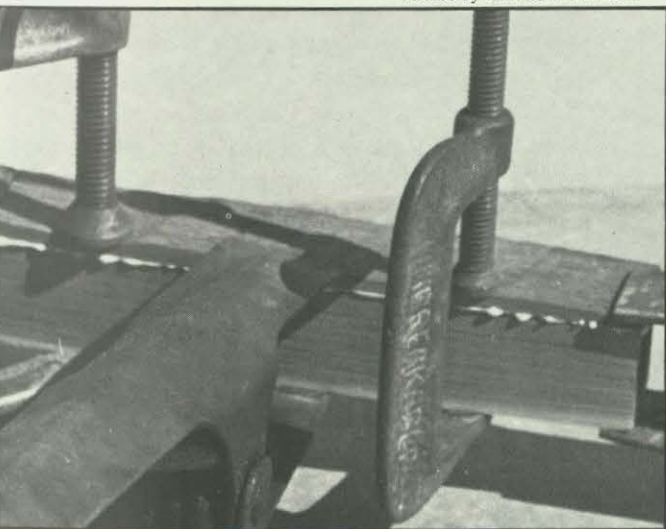
Making a cedar call isn't too difficult physically. The real art is tuning, just as the real art of turkey hunting is calling the birds within gun range. □

7



Photos by Kit and Max Hunn

6



(6) Position tone board in place with waterproof glue and clamps. (7) Check tone of the call. Sometimes it will be perfect as is. If not, follow directions in the text.

A common, widely recognized furbearer • By Morrie Naggiar

# Arukān

**B**lack "robber's mask" facial markings and ringed tail are the trademarks of the raccoon, one of our most common and widely recognized furbearers. Omnipresent in Florida, its mini-humanlike tracks are as apt to be encountered in urban back yards as in remote cypress swamp wilderness. Food is the key, and apparently gleanings from garbage cans and dog dishes are as acceptable to the town coon as palmetto berries, acorns and crayfish to its country cousin.

The name "raccoon" (usually it's simply coon in most writing and conversation hereabouts) is derived from the *Algonquin arakun*, "scratches with his hands." This reference is to the constant action of the handlike front paws which the animal uses in its investigation of everything that piques its lively interest.

Long fur gives the coon a blocky appearance and

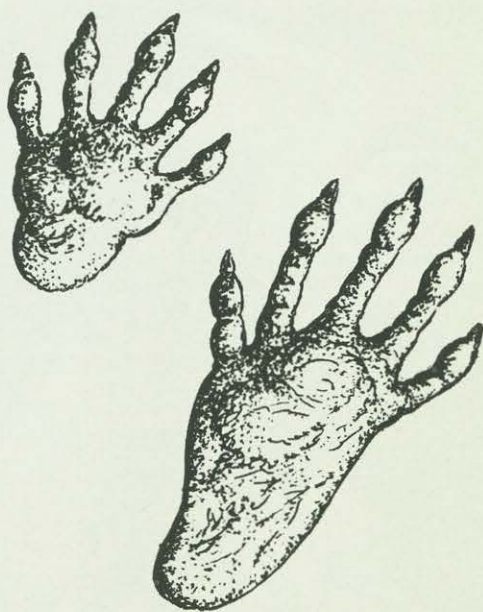
leads to some gross overestimations of actual weight. The average for adult coons in Florida is somewhere close to 12 pounds, although much heavier ones are not too uncommon. Leonard Lee Rue III, a frequent photographic contributor to *Florida Wildlife*, reported one super coon, caught in Colorado in 1960, tipped the beam at 62 pounds 6 ounces and measured 55 inches from nose to tip of tail.

The preferred denning site is a tree hollow. Lacking this, however, coons will use a variety of other sheltered places—hollow logs, drain tiles, abandoned buildings, and log piles to mention a few.

Four or five is the usual litter but this varies from two to seven. The young are fully furred at birth and weigh about two ounces. Their eyes are closed and remain so for the first few days.

Even in the northern states, coons do not go into actual hibernation but they remain inactive in their dens for prolonged periods, drawing on stored fat for sustenance. In Florida, coons may become less active during cold, windy weather but usually do not hole up for more than a day or two at a stretch.

No matter how you view the raccoon—as a valued game animal, a destructive varmint, an important furbearer, a public health problem, or an interesting member of the wildlife community—its Florida population today is alive and well, and then some. □



Curiosity is a strong trait of raccoon makeup, as the young coons in the top photo seem to demonstrate. A wide range of food items acceptable to the species helps make the raccoon at home in every part of the state.

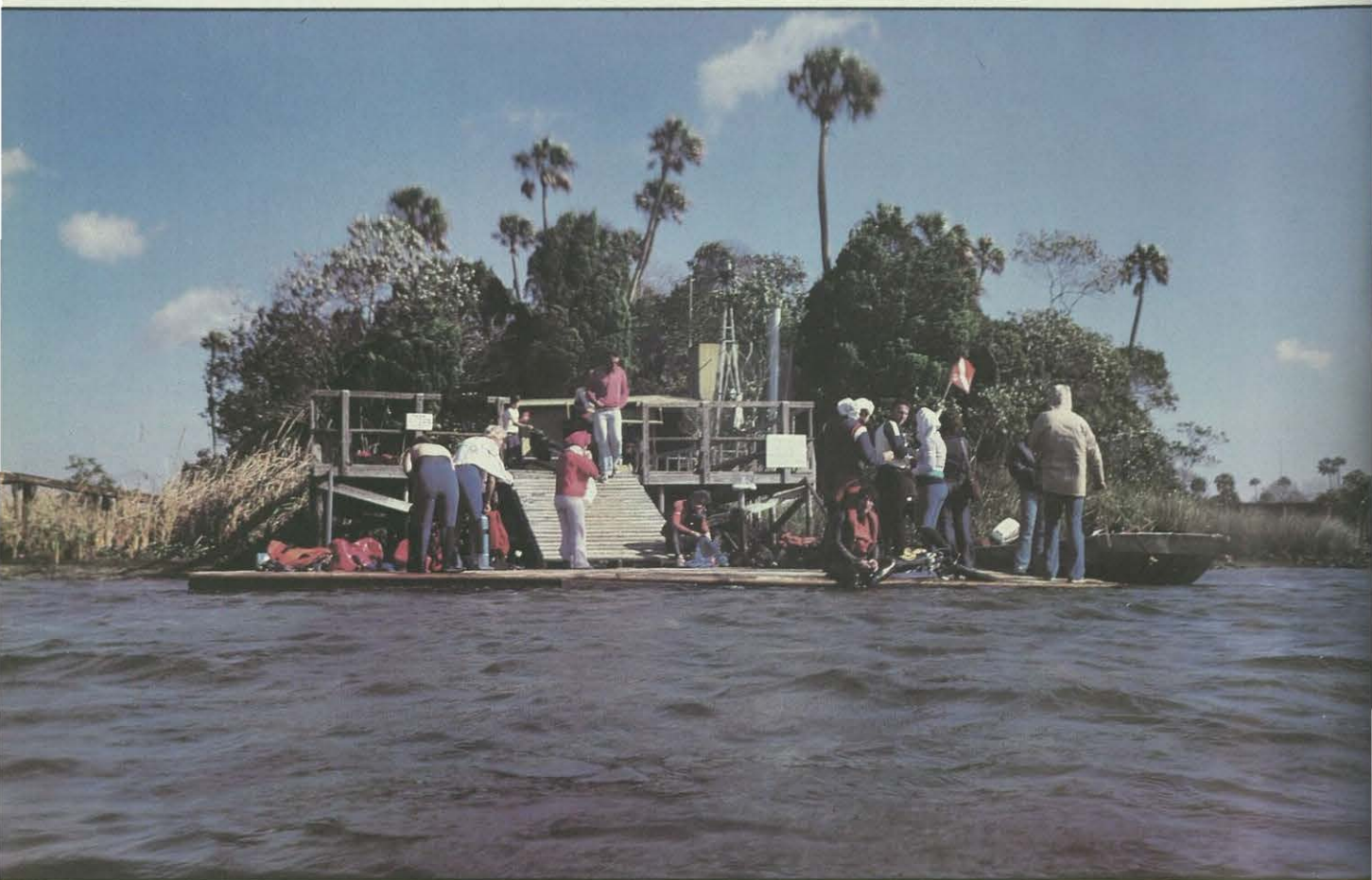


Jim Angy

Horace Brinson



# Crystal River FISHWATCHING



**O**n my first visit to the large spring at Crystal River, my goal was to observe the Florida manatee in its winter home. Like many other divers, I accomplished this goal. However, I discovered something equally fascinating—the fish. The clear spring and adjacent waters of Kings Bay revealed an interesting variety of freshwater and marine fishes.

Crystal River begins in a network of about 30 springs in Kings Bay in Citrus County. The town of Crystal River occupies the eastern shore of the bay. At the river mouth, brackish to marine water dominates. Farther up the several arms of the bay, freshwater conditions prevail. The major spring in





View of dock at Banana Island from the main spring on Crystal River, left above, Closeup of a pair of distinctively marked sheephead, lower left. Curious bluegill checks out visitor Jane Foster, above.

the group, known as Tarpon Spring or Big Hole, is located in the extreme southern arm of Kings Bay adjacent to a several-acre island known as Banana Island. The spring is about 65 feet deep and 200 feet wide. It contributes considerably to the overall freshwater discharge of the spring network that feeds the bay. The year-round water temperature in the

vicinity of the spring is around 72° Fahrenheit and attracts the Florida manatee when gulf waters become cold during winter. Some areas along the margin of the island are roped off by federal officials as manatee sanctuaries.

The air was cold on the January morning of my first dive at Crystal River. From the motel located near the spring, the whole area seemed shrouded in a delicate mist. When I entered the water it was, at least for a few minutes, like a warm bath. The shock of the cold water seeping into my wetsuit was immediately assuaged by the scene before me as I

## Photographs and Story by John Foster



## FISHWATCHING

descended. I was entering the largest fishbowl I had ever seen.

As I gazed upward to the surface, I could see the early morning sun highlighting the small particles in the water. To my surprise and pleasure, an immense school of mullet suddenly entered the scene, passing as distinct silhouettes in the crystal-clear water. It is not uncommon to observe mullet far upstream in Florida rivers, less uncommon in environments which provide them with abundant vegetation on which to feed. Tarpon Spring certainly qualified.

My pondering of the mullet school was interrupted by an attraction to the shadowy wall of the spring. Swimming just into the light was a large school of mangrove snappers. When I approached, they bolted in unison to the left and to the right, then back into the shadows of the uneven limestone. A more calculated approach on the next attempt allowed me to observe the school suspended against the spring wall as the light emphasized their coloration pattern.

Continuing my descent, I realized the spring was no ordinary place. On a sand-covered shelf at a depth of 30 feet or so, I noted the vertical bands of a group of sheepshead. I had heard they were present, but I did not expect to see so many. They were amazingly tame as I approached them and followed them around the strewn boulders near the floor of the spring.

My attention had been focused on marine fishes



since I entered the spring. It occurred to me, however, that bluegills were very abundant. There were other sunfishes, too.

The cylindrical cavity of the spring was decorated with a bottle brush shaped vegetation similar to *Elodea*. This thick growth, which also dominates the sandy flats around the spring, provides excellent cover and food for fishes as well as manatees. The plants harbor a myriad of insect larvae and invertebrates upon which the carnivorous fishes, especially bluegill, thrive.

Bluegills are members of the same genus (*Lepomis*) as are many of the other popular panfish taken from Florida's fresh waters. Of all the sunfishes, the bluegill has a greater variability of color. Generally, it

is olive green with some blue and orange highlights on the body. Distinct vertical bars are also present. Bluegills may grow to a length exceeding 10 inches and are usually found in quiet, weedy waters where food and cover are readily available.

The number of divers who visit Tarpon Spring during a year is considerable. The freshwater fish, which live there year-round, have become accustomed to this intrusion and have apparently adapted themselves to it. Having been fed so often by divers, the bluegills, and other fishes, respond to the outreached hand in search of a tidbit. The advantage for the photographer is obvious.

As is quite apparent, my dive to see the manatee had become a fishwatching experience. Soon my buddies, my wife among them, indicated that it was time to seek the manatee in the vegetation-covered flats south of the spring. Thinking that there was plenty of time for that, I signaled my wife to remain behind with me. She agreed. Too soon, however, it was time to surface, change film, and join the rest of the crew in a subtle but close observation of these docile, graceful mammals. Endangered as they are, they deserve attention and protection. While the manatees are surely the main attraction at Crystal River, the fish are a welcome addition. □



Photos by John Foster



Bulky figure of a friendly manatee attracted by the warm water of springs, left above. Togetherness is the name of the game with this school of mangrove snappers in lower photo on opposite page. View of spring from Banana Island with rocks exposed at low tide, above. Spotted sunfish, known to most Florida fishermen as stumpknocker, poses for photo at left.

# WINTER SERENADE

**I**t's the middle of December. The first heavy winter rains have fallen for the last two days over north Florida and the wooded ponds and grassy ditches are again resonant with the sounds of male frogs shamelessly declaring their ardor to all who will listen.

From the ponds come the whistles of spring peepers and the sharp chirps of ornate chorus frogs. From the ditches alongside the road come the high

insect-like tinkling of little grass frogs and the calls of Florida chorus frogs, sounding for all the world like someone running a thumb slowly down the teeth of a comb.

During the non-breeding season, many species of frogs and toads may wander far from water in search of insects and other small invertebrates which make up the bulk of their diet. It is then that you may encounter them feasting on insects attracted to the

Paul Moler





Barry Mansell

## By Paul E. Moler

Senior Biologist, Division of Wildlife

The spring peeper, far left, sports an irregular X-mark on back. A light line along edge of mouth and 3 to 5 longitudinal lines or rows of darker spots on back mark Florida chorus frog, left. The color of the ornate chorus frog, below, varies but often is reddish brown on back, has distinctive eye line.



Paul Moler

lighted windows of your house or providing cost-free pest control service to your garden. However, with the single exception of the exotic greenhouse frog, all of our resident species must return to water to breed. It is then that males take up their positions in or around ponds and sing lustily to attract females.

Florida is home to at least 30 species of frogs and breeders, although some of these, such as the pig frog, may be heard during any month in extreme

## WINTER SERENADE

The light-colored, distinctly marked small upland chorus frog, below, is widely distributed in U.S. The southern cricket frog, right, is very small, less than an inch in length, has virtually no tympanum (eardrum). The little grass frog, lower right, at slightly more than one-half inch in length, is smallest Florida amphibian.



Barry Mansell

south Florida. During the summer, sometimes as many as eight to 10 species may be heard calling in one area, resulting in a seemingly inseparable montage of sound. The best time to begin learning to recognize frog calls, though, is winter. Only four of our frog species are primarily winter breeders, with four others calling at almost any time of year—a total of just eight species. Rarely are more than three or four of these found singing together, making it much easier to single out individual sounds.



Barry Mansell

**Spring peeper, (*Hyla crucifer*)**—Voice: a high-pitched whistle, rising slightly at the end; an occasional trill may be heard among the whistles. Occurs commonly throughout north Florida and as far south as Orange County. Calls from ponds in or near wooded areas. A spring breeder farther north, but a winter breeder in Florida. Large choruses may be heard any time from late November to early April, except during very cold weather.

**Florida Chorus Frog (*Pseudacris nigrita*)**—Voice: a series of approximately six clicks, sounding very much like someone running a thumb slowly over the large teeth of a comb. This frog occurs

Paul Moler



## WINTER SERENADE

throughout Florida, most commonly calling from ditches, flooded fields and open ponds; almost always in shallow water with emergent grassy vegetation. Normally calls from concealment in a clump of vegetation or beneath a mat of dead grass; can be a winter breeder, Florida chorus frogs may be heard any time of the year.

**Ornate Chorus Frog** (*Pseudacris ornata*)—Voice: a series of abruptly terminated peeps repeated rapidly 50 to 80 or more times; individual notes are often likened to the sound of a hammer striking a steel chisel. Occurs throughout north Florida as far south as Lake County and still farther south along both coasts. Most often calls from shallow ponds

with emergent vegetation, less commonly from flooded ditches. A winter breeder.

**Upland Chorus Frog** (*Pseudacris triseriata*)—Voice: a series of short trills—*prrrreep*. Of only very local occurrence in Florida, primarily in lowlands along the Apalachicola River. A winter breeder.

**Little Grass Frog** (*Limnaeodius ocularis*)—Voice: a high-pitched, insect-like *sset-ssee*; also a call similar to someone running a thumb quickly over the small teeth of a comb. This is the smallest frog in North America and one of the smallest in the world with a maximum body length of 11/16 inch. Occurs commonly throughout the peninsula and as far west as southern Walton County, usually near shallow

Dale Jackson





Barry Mansell

The gopher frog, left, spends much time away from water, living in gopher tortoise burrows. The leopard frog, above, is a fairly large, slender frog, green on the back with rounded dark spots.

water with emergent grassy vegetation. The little grass frog may be heard calling any month of the year.

**Southern Cricket Frog** (*Acris gryllus*)—Voice: *ick-ick*, like a child's metal clicker or like two marbles knocked together in rapid succession. Another small frog, usually less than one inch in body length. Occurs very commonly throughout Florida in almost any wet situation. Cricket frogs may be heard calling any time of the year.

**Southern Leopard Frog** (*Rana sphenoccephala*)—Voice: two calls are commonly heard: (1) a sound very similar to that produced by pulling one's thumb along an inflated balloon; or (2) a rolling series of chuckles. May be heard calling any time of the year. Common in most wet situations throughout Florida.

Calling males with a pair of vocal pouches extending from the sides of the neck like water wings.

**Gopher Frog** (*Rana areolata*)—Voice: a deep snore. May be heard calling from late January to early November, usually associated with heavy rains. Calling is not continuous, and frogs are generally at the breeding ponds for only about two weeks. Not commonly heard. Lives away from water most of the year, generally in dry, sandy areas where it inhabits gopher tortoise burrows. Occurs throughout north and central Florida and along both coasts as far south as Broward and Collier counties. A species of special concern—protected in Florida. Has a pair of external vocal pouches as in the southern leopard frog. □

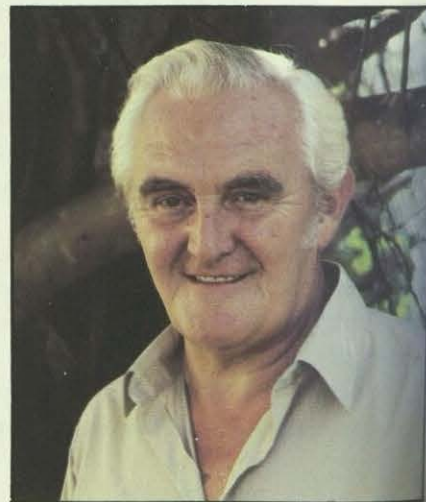
---

An LP record, "Florida Frog Calls," is available from the Florida State Museum, University of Florida, Gainesville, FL 32611. The cost is \$5, including tax and shipping. This record includes the calls of 20 of Florida's most commonly heard native frogs.



The wildlife photographs of

# Allen Milliken



Allen Milliken



## By Morrie Naggiar

“There’s nothing like getting off to an early start,” says nature photographer Allen Milliken. He recalls his first efforts in photography date back to when he was about five years old. His equipment consisted of a simple camera made by his great grandfather.

One thing lead to another with the cameras and by the time he reached high school in his native Pittsburgh, Pennsylvania, he became photographer for his high school paper and yearbook. After finishing up his studies at the University of Pittsburgh, he did a stint as a newspaper photographer.

Unique feeding technique of skimmer is clearly shown in photo at upper left. One food item of the little blue heron is revealed by photo above. At left, the rosy hue of the spoonbill adds a splash of color to watery habitat.





During World War II, he served in an army anti-aircraft artillery outfit, but managed to keep his hand in as photographer for a couple of camp newspapers.

After the war he began a career in chamber of commerce work, serving for more than 30 years in Pennsylvania and Ohio. During this time he was active on a "flock of boards and commissions, local, state, and national."

Now technically retired, he manages a small condominium on Sanibel Island near Fort Myers. "It

## Allen Milliken



Nesting yellow-crowned night herons guard brood, opposite page, upper photo. The osprey, far lower left, attracts attention with its characteristic call and large size. Known as the fish hawk, it is often confused with the bald eagle. Red-bellied woodpecker, left, is a common species in the state. The wash of red on its abdomen is usually difficult to see. Snowy egrets, below, show yellow feet, black legs and bill—good field marks.

makes an ideal headquarters for a nature photographer," he says, remarking on the abundance of birds and other subjects in the vicinity.

It was about 1960 when he took up nature photography. He has "shot a lot of birds, bugs and blossoms since then," he says. Many of the photos were used in audio-visual programs he put on in Ohio to make people more aware of the wonders of nature. He also taught some courses in nature photography at Ohio State University. He still maintains a connection with his Ohio days, serving as trustee of the Dawes Arboretum in Newark, Ohio.



# Allen Milliken



The Arboretum recently featured a showing of his photographs.

Since his retirement in 1980 he has turned pro—selling prints through galleries and transparencies to a number of publications. He also has continued presenting audio-visual programs on natural history subjects.

Milliken admits he is a confirmed gadgeteer when it comes to photographic equipment. "In the way of cameras and lenses as well as projectors, recorders and related gear, I've experimented with about





The red-shouldered hawk, far left, is year round resident of the state. Smooth-billed ani, left, is found on lower east side of peninsula. Oystercatcher, below, feeding on tidal flat, is attention grabber.

everything you can name." Nowadays he sticks to his Nikon cameras pretty much, although he still uses an old friend, a Pentax Spotmatic, for some purposes. His avowed favorite for bird work is a Novoflex follow-focus with a shoulder stock and 400-mm and 640-mm lenses.

Contrary to the preachings of most photographic gospel, Milliken says tripods aren't favored pieces of equipment in his scheme of things. He admits he has to use a tripod with his Questar 700 and Celestron 1000. "I violate a bunch of photography rules because I like to make pictures the simplest, quickest way, hand-holding equipment most of the time. This includes a self-designed close-up rig using a 135-mm lens on a bellows and an electronic flash. In bird work, the only blind used is a VW van—or stand-still patience." □





# Bluebird Weather

**I**t is my long-time habit to remain alert in a duck blind. But this morning it was my wife, Lou, who first saw the approaching flight of birds.

"I can't believe it!" she whispered, pointing.

She couldn't believe it because so far this warm and quiet January morning our decoys had attracted only a few scattered birds, mostly mergansers. Now, suddenly, half a hundred black and white bodies were streaking straight toward us—low above the brown marsh of the Chassahowitzka National Wildlife Refuge at Homosassa Springs.

"Bluebills," I whispered back. "Let 'em get right over the decoys."

We did. And, at precisely the right moment, we came up together, quickly firing loads of No. 4 steel shot.

We went for broke on that big flight of ducks, getting off five rapid explosions—three from Lou's Remington, Model 1100 autoloader, and two from my Browning over-and-under.

How many birds fell? I was hoping you wouldn't ask. We got none!

"I can't believe it," Lou muttered ruefully. "Did you load my shells with tobacco dust?"

"It must have been the shock of seeing that many birds at one time," I defended. Then we both broke up with laughter.

We reloaded and settled back again upon the wooden boxes that our guide, Doyle Head of Homosassa, had placed on the marsh shore, carefully hiding them behind cut palmetto fronds. As we resigned ourselves to once more providing a feast for



James C. Greene

## By George X. Sand

ledgeable in the changing ways of the vast Homosassa-Crystal River marsh and the many winding rivers and creeks that feed and drain the countless ponds of the vast sawgrass savannah.

"Sure, c'mon," Baker had responded without hesitation. "We may not have a limit waiting for you this year, but I reckon we can send you home with some ducks for Lou to cook."

Right now, however, it appeared doubtful that my wife would be doing much cooking as a result of this trip. A pintail drake circled us suspiciously, then made the mistake of planing down to strike up an acquaintance with what must have appeared to him to be a cute little plastic hen floating alone at the far edge of our spread of decoys.

Lou dropped this visitor with a single load of the steel.

We passed up several fish ducks (mergansers) after which I folded another loner—a bluebill this time.

Then we heard the sound of our guide's boat approaching. At first we thought he intended to pick

Streamlined body, elongated tail help identify pintail ducks, left. Like a setting from the South Sea Islands, scene doesn't much resemble typical duck hunting spot.

# mer Duck Hunt

the hordes of sand flies that swarmed about us, I found myself recalling what had led up to this bluebird weather duck hunt.

My wife and I enjoy hunting most any kind of game bird, but ducks in particular. Yet waterfowl sport had dropped off considerably in our home state. This year we had checked with hunters who had visited Lake Okeechobee and other favorite spots and their reports hadn't been encouraging.

"Why don't you phone Troy Baker?" Lou had suggested. "If he can't offer encouragement, we might as well forget it for this year."

Troy is manager of the Riverside Villas at Homosassa Springs. My wife and I have hunted and fished successfully out of that comfortable lodge for quite a few years. An affable man, Baker remains know-

George X. Sand



# Bluebird Weather Duck Hunt

up the two downed ducks. Instead, Head gave us bad news.

"We've gotta leave here—right now," he announced abruptly. "This darn east wind has blown so much water outta here we'll spend the night if we don't go now."

Reluctantly we did as Head asked. We clambered aboard his open boat and watched him quickly bring in our 25 decoys. "I can use this boat in only three inches of water," he told us. "But already the water is so low we'll have to leave here by a different route."

Back at the Riverside Villas, Baker remained optimistic, however. "A northwest or southwest wind is necessary to keep water in this marsh," he admitted. "Maybe it will swing around tonight so you can do better tomorrow. Doyle will meet you at the dock at the same time—5:30."

Lou and I had lunch served in our villa. As we ate, we watched three monkeys enjoying life on their small private island before the villas. (These animals are provided a heated underground apartment for their comfort in winter.) Then we spent the remainder of the day fishing for redfish and trout (best from March until about Christmas).

Next morning, it was still dark when we stepped aboard the guide's 24-foot skiff. A nylon cork net lay piled high in the stern. A husky outboard was mounted near the bow, its propeller shaft extending downward into the sturdy boat's shallow draft tunnel. When he is not busy with duck hunters, Head guides anglers or nets mullet.

"The wind is still east," I muttered in his ear as we got underway. He nodded but made no reply. Our guide then switched on a powerful handlight that revealed a big raft of hundreds of tightly bunched coots swimming slowly away before us.

Then, with no other boats seen, we sped westward following the Homosassa River through what I knew from other hunts to be a stretching flat marsh dotted here and there with palm hammocks. The gulf shore lay half a dozen miles farther on.

An enormous red-yellow moon hung low in the sky in that direction. It backlit the shadowy figure of our guide crouching in the bow, one hand reaching backward to control the roaring motor. A man alone in his special world of wild darkness, I found myself thinking. Rushing headlong through the night, accurately missing oyster bars, sometimes by scant inches, he was in a world that had been bred into him; one known with similar intimacy by at least four preceding generations of his family. We were

his guests; we had no choice but to depend upon his ability.

Like a setting sun, the big moon disappeared behind a long low bank of storm clouds. It began to rain hard and my wife poked me in the ribs and nodded approvingly. Perhaps we were going to get some worthwhile hunting weather after all.

We followed the river for a quarter-hour, then veered abruptly southward into Petty Creek. Next came Mason Creek and then the "Three Cabbage Palms" area where awaited the blind we had used the practically fruitless day before. The rain had stopped and the sky was beginning to tinge pink at our backs by the time Head had positioned the last of the decoys in a tempting in-curving pattern. Then he withdrew several hundred yards with his boat to watch and retrieve the birds we shot.

My hip-booted wife stood watching impatiently, arms akimbo, as I fussed with the blind's palmetto fronds. (I like to see out.) "Well, husband dear, what side do you prefer to shoot from?" she asked sweetly. "Take your pick."

I seated myself, refusing to rise to her bait. Unlike me, she can shoot from either side. Lou likes to needle me about this.

A pair of widgeon came whistling in seemingly borne on a jet stream of their own making. They came so unexpectedly that Lou and I shot almost as one. Both ducks dropped. They lay motionless, floating belly up.

"Ha!" my wife muttered. It was a pleased sound.

Half a dozen pintail veered high overhead, pausing for a second look. Then they continued disdainfully on their way. "I don't think there's anything wrong with our blind," I told Lou. "They must have just been snobs."

I knew we were well hidden because a couple of mergansers had swum by only six feet away, ducking their heads beneath the surface repeatedly as they fed.

The marsh was awakening on all sides now with strident cries and croaks. Long-legged herons and other wading birds flapped past close overhead. Some of these unsuspecting birds flared only at the last moment as they spotted us. From somewhere in the maze of creeks and ponds behind us came a sudden harsh quacking.

"Sounds like a little mallard hen," I whispered to Lou, peering carefully from our blind. "She must see something that I don't."

I settled back. The sand flies had found us again.

The little pests seemed to relish the highly advertised repellent spray we'd brought along.

A big pintail drake appeared from nowhere. We both spotted him as he came pumping rapidly toward us, low over the winding creek that fed the small patch of open water before our blind.

As Lou stood up to take him, the bird seemed to give a frantic hop upward. She shot under it. Once more she tried and missed.

I managed to catch the drake at the top of his climb and bring him down with a single shot. "Ha!" I grunted, enjoying my wife's scowl.

I decided it was time to wade out and retrieve this bird, along with the two widgeons. The mud was gooey; it nearly pulled my boots off.

"There can't be six inches of water," I told my wife, glad to be back in the blind. "The tide is dropping fast, too."

Five more pintails spotted our spread. We crouched, hardly daring to breathe as they looked us

over. Then they came to us as one, on down-cupped wings. As we jumped up, the startled birds climbed frantically.

Lou did better this time. She got two of the three that fell.

More pintails came. But now suddenly something was wrong. Instead of planing down into our decoys, they veered off to pitch into a small bay behind us, well beyond gun range. And the bigger the growing raft of ducks there got, the fewer fliers paid attention to us. The live birds called in everything that came near.

In frustration, I sent a load of shot in the direction of the small bay. That broke up the rafted birds and they left.

Our bluebird weather duck shoot was about over, however. Lou did drop one more bird, a Florida mallard.

When we signalled the guide to come get us, we weren't unhappy. We had enjoyed better days in this marsh, to be sure. But when one considered what had been available in our other hunting spots elsewhere in the state this season, we felt we had no reason to complain. □

Retrieving a pair of ducks was a real chore for author, what with battling soft mud for which the area is noted.

George X. Sand



# Hidden Treasures

By WILLIAM SMITH

*From an airplane they resemble tiny sapphires, sparkling blue gems scattered amidst an expanse of green vegetation—the forest's hidden treasure. In reality, they are uncounted small lakes in central Florida's Ocala National Forest. Many are nameless, most are isolated, and they offer a wealth of virtually untapped fishing excitement.*

The pickup's small engine purred quietly as it crawled through the sugar-white sand of the logging road. My 12-year-old son, Devon, and I had been driving along this four-wheel-drive terrain for over a mile searching keenly for a couple of trail markers placed by the Forest Service. According to our directions, they were supposed to be easy to find.

As we passed this stretch of soft sand, the road narrowed and the palmettoes and oak thickets of the scrub closed around us. It was only a temporary enclosure, however, for a short distance further the woods ended abruptly, giving way to an open prairie. Devon spotted them first.

"There they are, Dad! I see them!"

Sure enough, several hundred yards ahead were the trail markers—two small creosoted posts. But my gaze was quickly averted to just beyond where five tiny lakes sparkled blue and clear in the bright afternoon sunshine. Our search was over. We crossed the prairie and parked the truck.

With restrained eagerness, my son and I grabbed fishing rods and tackle boxes from the back of our pickup and walked hastily to the sandy beach of the nearest pond.

While Devon promptly began casting a plastic worm, I paused to absorb the tranquility of our surroundings. Here, no more than a half-hour drive from our home in Ocala, was a place of seclusion, a natural beauty typical of many of the state's wilderness areas. I reveled in the serenity.

We had fished only briefly when Devon suddenly

yelled, "Hey Dad, I've got a hit on this plastic worm!"

"Give him some free line before you set the hook!" I shouted.

Devon lowered the tip of the rod as the fish moved through the vegetation. When his line tightened, the boy struck forcefully.

What followed was a scene I have witnessed innumerable times with other fishing partners. The bass did nothing new really, but I noticed the excitement on my son's face as the lunker battled for his freedom. This was one of Devon's first bass and was sure to be his largest. As I watched, it took me back to my own boyhood days and my early fishing experiences.

"Keep him away from that snag!" I warned. Moving several steps to his right and making a few quick turns of the reel's handle, Devon maneuvered the fish around the limb and into shallow water where he finally pulled him on shore. The bass would easily go seven pounds. Devon was ecstatic.

"That's the biggest I've ever caught! This place is unbelievable!" he exclaimed.

Fish and wildlife on the Ocala National Forest are managed under a cooperative agreement between the U.S. Forest Service and the Florida Game and Fresh Water Fish Commission. It is one of the largest management areas in the state. Although the forest's reputation for fine fishing is well established, the angling potential of these remote ponds is surprisingly often overlooked.

I discussed these lakes with Sam McKinney, fisheries biologist for the Commission, who works out of the Ocala regional office and oversees the fish management of 12 counties in central Florida. His realm of responsibility includes the Ocala National Forest. McKinney explained:

"These isolated lakes require very little management. Nature does most of the work. And because of their remoteness, they are not subjected to the

impact of man's presence as are rivers and lakes in developed urban areas. As a result, life in these natural communities goes on undisturbed for the most part.

"The majority of these lakes hold good fish," he continued. "As for which ones are best, personal preference and experience are factors here. And, because many of them are smaller than 10 acres, they

are significantly influenced by fluctuations in rainfall. During periods of drought, some of them nearly dry up. But this is part of a natural cycle that is ultimately beneficial. The drought, for example, leads to decay of aquatic plants which, in turn, refurbishes the ponds with essential nutrients."

The forest's location provides ready access to sportsmen throughout the state. Additionally, all of

John Smith



Devon, author's son, poses with a braggin' size large-mouth from one of the "hidden" lakes. Finding these off-the-beaten-path spots offers rewards.

---

## FISHING SMALL LAKES IN THE OCALA NATIONAL FOREST

---

## Hidden Treasures

the primary roads within the management area can be easily traversed by car or truck. However, the more outlying ponds require hiking or a four-wheel-drive vehicle. But the forest is scenic and wildlife abundant, which compensate for the difficulties of traveling through this back country.

A detailed "administrative map" of the Ocala National Forest (as well as maps of the Osceola and the Apalachicola forests) is available from National Forests of Florida, Post Office Box 13549, Tallahassee, FL 32308. Cost is \$1 each.

Fishing these lakes does not require expensive gear or special techniques. However, if you wade or fish from the shore, you must carry your tackle as you move along. This dictates traveling light.

A small spinning outfit provides needed versatility and a belt pouch or backpack will carry an assortment of lures. Plastic food storage bags are excellent for holding plastic worms and hooks. As for apparel, anything beyond a bathing suit and sneakers is superfluous during warm weather.

Kevin Orme, a young Ocala resident and friend, is an experienced forest angler.

"I've caught my limit of bass in these ponds many afternoons with a minimum of tackle," he confided. "Most range from one to three pounds, but the other

day a buddy caught an eight-pounder, which isn't entirely unusual."

"Fishing these ponds is best during the spring and early summer when water temperatures are comfortable for wading and fish are most active," Orme went on. "If you're interested in panfish, May and June are your best months, and ultralight tackle and small spinning lures should do the trick."

Another forest pond enthusiast is Lt. John Thomas, a pilot for the Commission. His thing is fly fishing for bluegills.

"Sure, I've caught some nice ones out there wading and using popping bugs," he says matter-of-factly. "But honestly, fishing from a small john boat would be better. The bottom of the ponds can be pretty muddy for wading, although that's the way I've always fished 'em."

Having fished these ponds both ways, my own experience confirms Thomas' belief—using a small boat is better, but it's not essential to success.

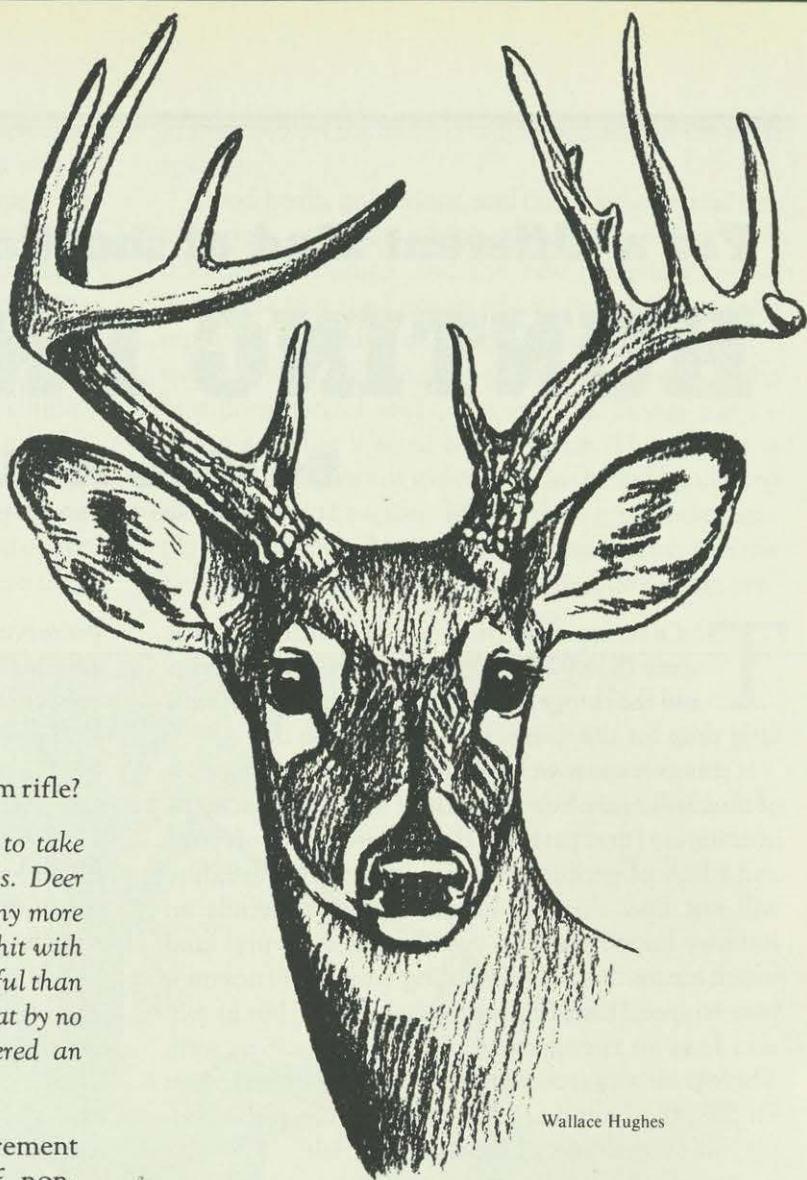
You know, writing about this pond fishing is giving me the itch to go again. As I look out my window, the sun is shining and I have a free afternoon. Guess I'll grab my rod and head out the door. □

One of the "hidden treasures." It may not look especially promising but you can't always tell a real winner without unlimbering your fishing gear.

John Smith



# IT'S THE LAW



Wallace Hughes

Why is it illegal to take deer with a .22 magnum rifle?

No rimfire cartridge is sufficiently powerful to take deer without a high percentage of crippling loss. Deer have been bagged with .22 rimfires; a great many more have run off to die a lingering death after being hit with this small bullet. The .22 magnum is more powerful than the regular .22, but it is still so underpowered that by no stretch of the imagination could it be considered an adequate deer cartridge.

Why did the Commission remove the requirement for "plugged" shotguns for the taking of non-migratory game?

Many years ago, mandatory plugging of magazine shotguns to reduce shell capacity was initiated for all hunting in Florida. This regulation was based on the premise that restricting the number of shots possible without reloading would make it more difficult for hunters to exceed the daily bag limit. Actually, it accomplished little toward controlling the unethical hunter who does not adhere to the law anyway and is objectionable to those who do follow the rules.

Federal law (and the regulations of the Commission) continue to require that magazine guns be limited to a three-shell capacity for hunting rails, gallinules, ducks, dove, snipe, woodcock and coots.

What license is required for taking furbearing animals for sale?

A furbearer license is required to take such animals for commercial purposes, but they may be taken for sporting purposes or personal use by holders of a valid hunting license. Children under the age of 15 and residents over 65 years of age are exempt from either of these license requirements.

Is it legal to use small bass and bream as live bait?

Although largemouth bass (or any part of one) may not be used as bait, you may use bream or pickerel as live bait on cane pole or rod and reel. You must catch your own, however, since game fish may not be sold. No game fish may be used for bait on trotlines or bush hooks.

What is behind the prohibition of goldfish as live bait in the fresh waters of the state?

While it is popularly assumed that this prohibition is because of the extreme effectiveness of goldfish as bait, such is not the case. The regulation is based on the fact that goldfish, a member of the carp clan, carried to a lake or stream for bait could escape or be dumped into the water and could thus become established as a "wild" population. "Rough" fishes of this sort can take over waters, crowding out more desirable game species. They are not all that effective as bait, anyway.

---

**By Dave Swindell**

---

# For a different kind of shooting experience, try a **HUNTING PRESERVE**

**By Chris Madson**

Conservation Department, Winchester Group

**T**he average American is not burdened with spare time. What with the things he *has* to do and the things he *ought* to do, there is precious little time for the things he would *like* to do.

If this average man happens to be a hunter, a lack of time will cause him all kinds of inconvenience, for hunting is a rural pastime. It requires plenty of space and a lack of people, two commodities an urbanite will not find close to home. It also demands an intimate knowledge of a specific piece of rural land which means that a city-dwelling hunter will not only have to spend time finding the right place, but he will also have to spend some time studying it as well. There is no way around the hard truth of the matter: Finding good hunting takes time. That is, if the hunter insists on doing all the work himself.

Actually, there is a way an urban hunter can line up a hunt with a single phone call to the state fish and wildlife agency. They license all hunting preserves and usually publish a current directory of all commercial operations. The spot does not have to be more than a couple of hours from his door, and he can make a reservation with the preserve operator so that he does not have to show up at the crack of dawn. He can legally open the season a month or more ahead of the general state opener, and he can keep hunting two or even three months after the general upland seasons close. He can work hundreds of acres of excellent cover with the landowner's blessing, hunt over a well-mannered dog, and be sure of seeing his share of birds. It is a hunt that would make almost any hunter drool, and it is available all over the country.

Most hunters avoid hunting preserves for a couple of reasons. The first is cost. There is no doubt that the price of a day's shoot on a preserve is a little chilling to the hunter who has never bothered to keep track of his expenses on a "free" hunt, but, if he kept a ledger, he might be appalled to find that the average opening weekend hunting trip can cost as much as the same weekend spent on a good hunting

preserve. There is your share of the gas, the cost of a reasonable motel room, two or three days of restaurant chow—if you keep the bill under \$100, you are doing well. None of this expense guarantees you a good hunt; it is what you will have to spend regardless of the action you see. If you keep a dog, scout the hunting area ahead of season, or do anything else to take some of the gamble out of the trip, your costs multiply in a hurry.

In any case, the cost of a commercial hunt is not really at the heart of the hunter's objection to hunting preserves. Most hunters could find the price of admission if they really wanted to try a preserve shoot. They avoid preserves because they do not like the idea of an artificial hunt. They want the real thing.

It is hard to define "the real thing" in hunting anymore. Millions of American gunners have grown up hunting pheasants; others prize their Hun and chukar shooting even though all three species are exotics. Game management is by definition an artificial influence on wildlife habitat; even where we decide to protect a tract of land from all human influence, we have made a decision that artificially affects the future of that piece of land.

There is really only one essential difference between the hunting preserve and other hunting areas. On the preserve, the majority of the game is raised in pens instead of being produced naturally in the wild. This difference may explain the reputation preserves have among many hunters since pen-reared birds can be pale imitations of the real article. The top-of-the-line commercial areas know their reputations and financial success rest in large part on the quality of their game. Some carefully raise their own birds; others buy from experienced breeders.

Preserve hunting is almost a surefire way of getting shooting at a variety of game - some like pheasant available in Florida only on these private hunting grounds.

The birds on a good hunting preserve are selected from strong flying breeders with excellent color formation. Such birds are given plenty of space in their holding pens, allowing them to keep their wings in shape and at the same time minimizing squabbles that can damage plumage. The bottoms of the pens are planted in sorghum or allowed to grow up in rank grass and weeds where the birds can loaf in private. This reduces even more the chances of serious fighting or pecking. The result is a pheasant that may be almost too good—well feathered, hard flying, sly, hard to find and even harder to hit. Other hunting preserve birds, be they chukar, Hun, or mallard, are bred and raised with the same care to make sure they

are honest, challenging representatives of their species.

Good birds, good dogs, and cover are essential raw materials without which a hunting preserve is doomed to failure. But the raw materials are no guarantee that the hunt itself will be worth a client's money. The quality of the final product depends on the men who own and operate the preserve. On the best commercial areas, the men in charge have a vision of what a hunt ought to be. That vision is borne out of years of experience in the field and deep affection for the sport. Most hunting preserve people are not in the business to get rich; they are in the game because they love hunting. As one Kansas pre-

Bob Waterman



# HUNTING PRESERVE

serve owner recently told me: "Having an area like this managed especially for hunting has been a dream of mine all of my life. Now I am looking for a few serious hunters who would like to share that dream."

Like a new suit, you may have to shop around for the "right" hunting preserve, but do not knock the

preserve concept until you have tried a few on for size.

Sportsmen wishing to take advantage of the opportunities offered by shooting preserves can obtain a free copy of the 1982-83 North American Hunting Preserve Directory by sending a stamped, self-addressed envelope to the National Shooting Sports Foundation, P. O. Box 1075, Riverside, CT 06878. □

## FLORIDA SHOOTING PRESERVE LICENSE HOLDERS as of October 15, 1982

| HOLDER NAME                        | ADDRESS               | CITY               | ST. | ZIP   |
|------------------------------------|-----------------------|--------------------|-----|-------|
| Ash Hunt Club                      | 114 W. Madison St.    | Starke             | FL  | 32091 |
| Ashley, Harold                     | P.O. Box 216          | Melrose            | FL  | 32666 |
| Baker, Thomas H.                   | Rt. 2, Box 286        | Alva               | FL  | 33920 |
| Bonnette Shooting Preserve         | 5309 Hood Road        | Lake Park          | FL  | 33410 |
| Bradley, L.D.                      | Rt. 2, Box 245        | Macclenny          | FL  | 32063 |
| Buffett, J.W. & Rowell, F.E.       | P.O. Box 128          | Bronson            | FL  | 32621 |
| Carpenter, William K.              | 200 E. Palmetto Park  | Boca Raton         | FL  | 33432 |
| Cedar Key Hunt & Game Preserve     | P.O. Box 88           | Cedar Key          | FL  | 32625 |
| Cedarwood Hunt & Game Preserve     | P.O. Box 88           | Cedar Key          | FL  | 32625 |
| Davis, J.E.                        | Box B                 | Jacksonville       | FL  | 32203 |
| Florida Coca-Cola Bottling Company | P.O. Box 249          | Daytona Beach      | FL  | 32015 |
| Florida Rock Industries            | P.O. Box 4667         | Jacksonville       | FL  | 32201 |
| Gaskins, Steve                     | Rt. 10, Box 6C        | Lake City          | FL  | 32055 |
| Gilman Paper Company               | P.O. Drawer 878       | St. Marys          | GA  | 31558 |
| Gustafson, E.S.                    | —                     | Green Cove Springs | FL  | 32043 |
| H.D. Ryals Preserve                | P.O. Box 1867         | Punta Gorda        | FL  | 33950 |
| Indian Hammock Hunt Club           | P.O. Box 1148         | Okeechobee         | FL  | 33472 |
| J.P. Hall & Son, Inc.              | P.O. Box 395          | Green Cove Springs | FL  | 32043 |
| Kelly's Preserve                   | P.O. Box 1867         | Punta Gorda        | FL  | 33950 |
| Kim-Jim Preserve                   | P.O. Box 1867         | Punta Gorda        | FL  | 33950 |
| Kirkland, Luby                     | 180 - 13 St., NW      | Golden Gate        | FL  | 33999 |
| Knowles, Dr. Robert P.             | 2101 NW 25 Ave.       | Miami              | FL  | 33142 |
| Lee, Gerald & Bratton, Joe         | 320 N. Indian Rocks   | Belleair Bluffs    | FL  | 33540 |
| Lightsey Cattle Company            | 702 Tiger Lake Road   | Lake Wales         | FL  | 33853 |
| Mabry, Carlton & Sons Ranch        | Rt. 2, Box 710        | Arcadia            | FL  | 33821 |
| Madison Hunting Club               | Rt. 2, Box 415        | Madison            | FL  | 32340 |
| Martoda Ranch                      | 320 N. Magnolia, 1-A  | Orlando            | FL  | 32801 |
| Mayaca Land Corporation            | P.O. Box 151          | Pahokee            | FL  | 33476 |
| Oak Valley Hunt Preserve           | 14010 NW 20 Court     | Opa-locka          | FL  | 33054 |
| Old Kings Game Preserve            | Star Rt., Box 53-H    | Bunnell            | FL  | 32010 |
| Open Choke Hunt Preserve           | 3775 - 23 Ave., SW    | Naples             | FL  | 33999 |
| Perkins, Everall D.                | 234 Office Plaza      | Tallahassee        | FL  | 32301 |
| PK Ranch & Hunt Preserve           | Rt. 3 Box 445         | Brooksville        | FL  | 33512 |
| Rollins, O. Wayne                  | 2170 Piedmont Rd., NE | Atlanta            | GA  | 30324 |
| S Bar W Ranch                      | Star Rt. 1, Box 585A  | LaBelle            | FL  | 33935 |
| Saran Ranch Hunting Preserve       | P.O. Box 3386         | Tampa              | FL  | 33601 |
| Shingle Creek Hunt Preserve        | 1310 W. Colonial Dr.  | Orlando            | FL  | 32804 |
| Tucker, Jr. J. Walter & R.T.       | 740 Palmer Ave.       | Winter Park        | FL  | 32789 |
| Walter, J.W.                       | P.O. Box 22601        | Tampa              | FL  | 33622 |
| Ward, Hervis                       | Rt. 2, Box 57F        | Crestview          | FL  | 32536 |
| White Oak Plantation               | Star Rt. 2, Box 1296  | Yulee              | FL  | 32097 |
| Yates, Rex T.                      | El Rancho             | Chipley            | FL  | 32428 |



# JUNGLE MOTHER

By Dean Morgan

In the early fifties, the road leading to the main entrance of Everglades National Park was very different from what it is now. Whisking easily over the smooth blacktop, it's hard to realize this is the same route where I drove over a bumpy, rocky, white, potholed, narrow lane with washboard corrugations that shook our '53 Chevy so violently it threatened to knock the bolts out, even at painfully slow velocity. The enforced creepalong drew out the long dreariness of those drab, flat farmlands along the way.

Yet there was worse to overcome. On the passenger side that day sat my mother, complaining bitterly every mile of the distance. She constantly adjured me to turn back, and several times I almost did. I marvelled at my own tenacity when we passed the park entrance station, which was then a tiny thatched hut in the middle of the road. Nobody was in it.

Have you ever been to the park's Anhinga Trail? It's a boardwalk, enabling visitors to observe the wildlife of an Everglades slough without getting their feet wet. You may recall parking at the Royal Palm Ranger Station, then walking down a broad pathway to reach the boardwalk. Well, at that time there was no Royal Palm Station, and that pathway was the main road. You just parked as far toward the edge of the swamp as you dared, then walked directly onto the boards.

I stepped out of the car into the hot, damp, heavy air, permeated with a powerful swamp odor. It was oppressive, but at the time exhilarating. Breathing it was like sucking in the very taste of the Florida

wilderness. It constantly vibrated with loud, heavy grunts that seemed to emanate from everywhere at once: "URR!—URR!—URR!—URR!—URR!—....." The sounds were explosive, pounding.

I turned to remark to Mom on the pristine glory of this atmosphere, and was surprised to see she was still in the car. Moreover, she had rolled up the windows. We had no air conditioning, and she was already starting to perspire. I was perplexed; what was she trying to do, suffocate herself? I tapped on the pane, and she reluctantly lowered it, just a crack. "Get back in here!" she demanded, "Can't you hear them things?"

"The trail's right here," I told her, pointing at the boardwalk. "Let's go down it, and maybe we can see what's making the noise!"

"I'm not getting out and let something eat me up," she declared. "Get back in, and let's go!"

I had not braved that miserable rocky road, and Mom too, in order to turn around and go back when I was just a few steps from one of the natural marvels of the world. After pleading with her to join me, I started down the boardwalk alone. I guess she expected never to see me again.

When I returned from my hike, another car was parked beside ours. To my surprise, Mom had finally gotten out. I was relieved she hadn't succumbed to the heat in her self-made torture chamber. Having seen the people from the other car go down the trail and return with life and limbs intact, she was at last willing to venture forth.

It turned out the booming grunts that shook the humid air were made by pig-frogs. I was disap-

---

# JUNGLE MOTHER

---

pointed that we saw no alligators on this jaunt. Mom wasn't.

With the passage of years, I became a ranger with the Florida Park Service. (I commuted to Cape Florida State Park from our home in Hialeah.) Thrilling daily to the wonders of the wild, it pained me to know I was living with someone who panicked whenever a lizard got into the house.

I determined that I would try to introduce her to the joys of the natural world. I thought about getting a tent and taking her camping, but realized at once that would be too extreme. When, however, I learned you could rent a log cabin at Myakka River State Park, it seemed I'd found a practical compromise. Mom laughed in derision when I first suggested it.

I had to resort to threats. If she wouldn't come along, I warned, I'd never take her to Disney World again.

Mom gasped when we pulled up to our palm-log cabin in the late evening. In the dark crawlspace underneath, my headlight beams sparked a pair of bright yellow eyes. When we got out of the car, a 'possum waddled out from under the house and headed for the brush. A nearby sign designated our temporary abode, appropriately, as "Lonesome 'Possum" cabin.

At my own park—Cape Florida—night patrol was one of my favorite duties. It provided a great opportunity for wildlife observation. Myakka River Park was much wilder country, so I was eager for an afterdark drive here on our second night. Mom protested, but she was too sleepy to put up much resistance. She had stayed awake all the previous night, braced for an attack by wild beasts that might break into the cabin.

Myakka was a wildlife wonderland. Wild hogs, armadillos, raccoons, 'possums—and for a change, Mom didn't keep begging me to turn back. It was a while before I realized why. Whenever I glanced toward her to remark on something, I found she'd dozed off.

She woke up, though, when I jolted to a halt. "Are we back at the cabin?" she inquired hopefully.

"No, look!" I said, "It's a rattlesnake!"

He was gradually looping across the road, his tail-rattle held high. Mom was wide awake now. Looking over toward her, I at first couldn't believe my eyes. A deer walked out of the darkness, and stood beside the car, staring into her window. "Look to your right," I instructed.

The sight seemed to freak her out. What to me had

been a fascinating wildlife experience was to her a nightmare of horrors.

Perhaps I'd tried to rush her into this sort of thing too fast. For a while, I'd limit our excursions to daytime outings. I got her to join me on trips to Everglades National Park by bribing her with visits to Disney World.

By the 1970s, modern roads and facilities had been developed here. Once I saw a knot of visitors standing beside the highway, and pulled over to investigate. "It's a snake!" one of the crowd told me.

"C'mon, Mom!" I enthused, and started elbowing and shoving my way through the crowd. "Keep close behind me."

Working doubly hard to open a pathway wide enough for Mom to follow with ease, I'm afraid I created a deal of ill feeling. At last I'd fought my way to the fore, where a big water moccasin basked in the grass. In my exuberance, I jostled a big husky guy aside. "Hey!" He growled, "What do you think you're doin'?"

"Have a little consideration!" I shot back. "My mother's here with me. She wants to see the snake. It's her last wish before she dies."

He looked at me quizzically. "Mother?" he repeated.

"Yes. Come on, Mom—" I was shocked to see she wasn't behind me. Had the crowd swallowed her up?

No. Above the milling heads, on the higher ground by the road, she was waiting placidly by the car.

I'm afraid I was a bit tight-lipped on the ride home. Mom finally broke the silence. "Why do they let snakes and alligators out there," she asked, "where people are?"

I realized, once again, that I'd have to deal with her on a very basic level. "It's not a matter of letting them there," I explained. "They're there naturally; they're part of the Everglades."

She looked skeptical. "Don't you think," she asked, "they put those animals out there for people to see?"

"Of course not! The idea of the park is to preserve the natural habitat, and the animals with it."

"I think," she concluded, "they put those animals out there for people to see."

After a few years of such minor excursions, I elected to reintroduce Mom to the adventure of overnight wildering: Flamingo Lodge, the hotel in Everglades Park, had much less the look of wild solitude than our palm-log cabin at Myakka. Maybe she'd be less afraid there.

This time, on our nighttime wildlife drive, she didn't keep falling asleep as before; but I came to wish she would. She kept up a constant nagging for

me to turn back, insisting there were no animals to see along this road anyhow.

The irritation of this was intensified by the necessary slowness of our pace. To have a really effective nighttime wildlife drive, you should creep along at about five or 10 miles an hour. Going faster creates a double problem; either you may not see what animals you whiz past, or you might run over one which is dazzled by the headlights. But going this slow while enduring Mom's verbal pounding was really an exasperation.

Suddenly I noticed glowing eyes at the very edge of the headlight beams to the left of the road. I pulled to a halt. Mom screamed, "What are you doing?"

I'd seen enough outline of the face to know what it was. "It's a bobcat." I said.

"There's nothing there," she insisted as I lurched the car into a quick U-turn.

The big feline stood looking back toward us, his stubby, black-striped tail switching quickly back and forth. "It is a bobcat!" she gasped, "It really is!"

"Sure," I told her, "you think I didn't know a bobcat? I'm a ranger...."

Mom reverted to form. "All right, we've seen him," she said. "Now let's go back to the hotel."

Of course we didn't go back, even after the bobcat grandly turned away to resume his prowl. Mom could yammer all she wanted; now I knew we were really going to see things.

It was one of the great experiences of my wildlife career. A raccoon dashed into the headlight beams to catch a frog on the road. We saw a second bobcat, sneaking along the highway shoulder. Two deer crossed the road near Mahogany Hammock, their brilliant eyes dancing along like supercharged fireflies. And much more. Only after all this did we return to Flamingo Lodge, where, it seemed to me, we enjoyed all the amenities of civilization.

Once a relative asked Mom how she'd enjoyed "roughing it" in the Everglades. "It was just awful!" Mom cried. "We had to watch black-and-white television!" □



Sam Westbrook



# Hunter Education News

## 1981-82 HUNTING SEASON ACCIDENT REPORT

The following is the list of hunting-related accidents reported to and investigated by officers of the Florida Game and Fresh Water Fish Commission. Hunting still remains one of the safest participant sports, but like all sports, safety rules must be followed.

| DATE/<br>DAY          | TIME       | AGE OF<br>SHOOTER | FATAL | TYPE OF<br>FIREARM | CIRCUMSTANCES                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------|------------|-------------------|-------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11/14/81<br>Saturday  | 6:45 a.m.  | Unknown           | No    | Shotgun            | Deer ran between shooter and victim. Shooter fired as deer crossed and projectile struck victim in right thigh.                                                                                                                                                                                                                                                                                                                 |
| 11/14/81<br>Saturday  | 8 a.m.     | 16                | No    | Shotgun            | Shooter and victim entered forest together and then separated. Shooter mistook movement of victim as deer in bush and fired, hitting victim.                                                                                                                                                                                                                                                                                    |
| 11/14/81<br>Saturday  | 8 a.m.     | 45                | No    | Shotgun            | Subjects were running dogs which ran deer between shooter and victim in heavy brush. Shooter fired at deer, striking victim who was hidden by brush.                                                                                                                                                                                                                                                                            |
| 11/14/81<br>Saturday  | 8 a.m.     | 37                | No    | Rifle              | Victim was standing beside road in bushes. Deer crossed the road between victim and shooter. Shooter missed deer and struck victim in lower right thigh.                                                                                                                                                                                                                                                                        |
| 11/14/81<br>Saturday  | 6 a.m.     | 27                | No    | Rifle              | Victim and shooter in same party hunting on road approximately 1/4-mile apart. Deer ran between them; both shot at deer, resulting in victim being hit in kneecap.                                                                                                                                                                                                                                                              |
| 11/15/81<br>Sunday    | 6 a.m.     | 16                | No    | N/A                | Victim was sleeping in the road under a black blanket. He was run over by a pick-up truck.                                                                                                                                                                                                                                                                                                                                      |
| 11/15/81<br>Sunday    | 11 a.m.    | 47                | No    | Handgun            | Victim shot deer from full-track; replaced gun in holster and jumped from seat to deck of truck (approximately 5 feet). Gun discharged, wounding victim in back of right leg.                                                                                                                                                                                                                                                   |
| 11/15/81<br>Sunday    | 1:50 p.m.  | Unknown           | No    | Shotgun            | Hunter in woods shot across open field at a doe deer, hitting deer and victim beyond.                                                                                                                                                                                                                                                                                                                                           |
| 11/16/81<br>Monday    | 6 p.m.     | 40                | No    | Handgun            | Victim was walking in woods when he tripped on a root causing him to go down on both knees, whereupon the revolver he was wearing in a holster went off, shooting him in the right leg.                                                                                                                                                                                                                                         |
| 11/20/81<br>Friday    | 7:30 a.m.  | 69                | No    | Rifle              | Hunter was shooting from a sitting position with a rifle on his lap. As he shot a squirrel with his shotgun, the recoil caused the trigger of the rifle to hang and discharge, striking him in the foot.                                                                                                                                                                                                                        |
| 11/21/81<br>Saturday  | 12 p.m.    | 23                | No    | Shotgun            | Victim was member of hunting party but not hunting. Hog ran out between shooter and victim. Shooter shot hog and shot victim in knee.                                                                                                                                                                                                                                                                                           |
| 11/24/81<br>Tuesday   | 5:15 p.m.  | 14                | Yes   | Shotgun            | Shooter saw turkey fly into tree, shot and missed. Knowing the turkey was in the area, he saw weeds move and a red spot. Thinking the red spot was the turkey's head, he shot, killing a member of his own party who was wearing a blaze-orange hat.                                                                                                                                                                            |
| 11/26/81<br>Thursday  | 8:45 a.m.  | 26                | No    | Shotgun            | Hunters, while walking through thick brush, jumped a covey of quail, shooter covered victim while swinging on game.                                                                                                                                                                                                                                                                                                             |
| 11/27/81<br>Friday    | 4 p.m.     | 16                | No    | Handgun            | Victim was deer hunting and stopped to target practice. He was drawing revolver from holster when revolver discharged single round, striking him in back of calf of left leg.                                                                                                                                                                                                                                                   |
| 11/28/81<br>Saturday  | 12:15 p.m. | 20                | No    | Handgun            | Branch caught on hammer causing 1/2 cocking action. Forward movement released hammer without actually fully cocking revolver. Hammer fell on live cartridge discharging into victim's leg.                                                                                                                                                                                                                                      |
| 11/28/81<br>Saturday  | 5:13 p.m.  | 15                | No    | Rifle              | Victim was hunting with his 9-year-old brother who had a .22 rifle with no stock or trigger guard. They propped the guns on a branch and the guns fell. The trigger of the .22 rifle hit a branch and discharged, striking victim in the lower back.                                                                                                                                                                            |
| 12/02/81<br>Wednesday | 5:10 p.m.  | 18                | Yes   | Shotgun            | Shooter shot at a deer off of road. Apparently, victim was behind the deer and was hit by the stray pellets. Shooter missed deer, but hit victim.                                                                                                                                                                                                                                                                               |
| 12/05/81<br>Saturday  | 8:26 a.m.  | 23                | No    | Shotgun            | Deer ran across road in front of victim. Shooter, on the side of deer from victim, shot down road at deer, hitting victim's truck and victim.                                                                                                                                                                                                                                                                                   |
| 12/05/81<br>Saturday  | 5 p.m.     | 42                | Yes   | Rifle              | Shooter shot at deer over a low hill, missing deer and hitting victim whom he could not see.                                                                                                                                                                                                                                                                                                                                    |
| 12/12/81<br>Saturday  | 5:30 p.m.  | 10                | Yes   | Shotgun            | Victim was found in vehicle with very old firearm with hair trigger. Apparently it went off when the butt jarred the floor of vehicle, hitting victim in the throat and head.                                                                                                                                                                                                                                                   |
| 12/16/81<br>Wednesday | 3 p.m.     | 16                | No    | Shotgun            | Victim and two juvenile hunters were walking abreast when a quail flushed to the right. Shooter in middle fired at bird, striking victim to his right in the face blinding him in both eyes.                                                                                                                                                                                                                                    |
| 12/17/81<br>Thursday  | 10 a.m.    | 37                | No    | Rifle              | Victim was in process of unloading his muzzleloading double-barrelled rifle into the designated discharging area so he could clean and reload it. He discharged the right barrel first, then when he discharged the left, fragments from the cap struck him in the area of his eye. He had earlier repaired this barrel improperly so that the hammer did not strike the nipple properly and permitted the fragments to escape. |
| 12/18/81<br>Friday    | 8 a.m.     | 18                | No    | Shotgun            | Victim was on deer stand hidden from shooter by small bush. Deer ran between them and when shooter fired at it, he hit victim in right thigh.                                                                                                                                                                                                                                                                                   |
| 12/22/81<br>Tuesday   | 5 p.m.     | Unknown           | No    | Shotgun            | While victim and shooter were squirrel hunting on their property, victim was accidentally shot in face and left shoulder.                                                                                                                                                                                                                                                                                                       |

|                       |            |         |     |         |                                                                                                                                                                                                                         |
|-----------------------|------------|---------|-----|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12/24/81<br>Thursday  | 10 a.m.    | 20      | No  | Shotgun | Victim and two friends were returning to truck when victim left party to retrieve tree stand. Shooter heard noise and saw movement. Thinking it was game, he fired one shot and hit victim.                             |
| 12/27/81<br>Sunday    | 6:41 p.m.  | 31      | No  | Rifle   | Shooter fired at what he thought was a turkey in waist-high brush and instead hit victim who was squatting in the brush. Both shooter and victim had been drinking earlier. Victim suffered severe injuries to abdomen. |
| 12/28/81<br>Monday    | 8:45 a.m.  | Unknown | No  | Shotgun | Victim and shooter were in woods hunting squirrel. Shooter was overeager and when he saw movement in bushes, he shot, hitting victim in forehead, arm and abdomen.                                                      |
| 01/01/82<br>Friday    | Unknown    | 23      | Yes | N/A     | Victim was hunting alone. He was a poor swimmer and drowned while trying to retrieve deer from water by himself.                                                                                                        |
| 01/10/82<br>Sunday    | 11:15 a.m. | 25      | Yes | Rifle   | Hunter shot at deer, victim was out of sight, setting fence posts. One of 3 shots fired at running deer hit the victim.                                                                                                 |
| 01/27/82<br>Wednesday | 4:10 p.m.  | 27      | No  | Shotgun | Shooter saw movement behind tree and, instead of investigating, he fired twice hitting victim in neck and shoulder.                                                                                                     |

## FRESHWATER FISHING EXPLOSION

Florida is now entering a period of "explosive re-expansion of freshwater fish populations" which will greatly increase fishing opportunities, slowed by drought conditions for the past two years.

"There's no question about it. Our freshwater fish resources will experience a great resurgence over the next several years, as fish populations expand into recently flooded areas," says Smokie Holcomb, director of the Division of Fisheries of the Florida Game and Fresh Water Fish Commission.

During the past two years most of Florida has recorded less than average levels of rainfall, likened to drought conditions the state experienced in the 1950s. But now we are receiving normal to higher levels of rainfall, especially in south and central Florida.

While drought conditions restricted various activities, including freshwater fishing, they set the stage for a strong fisheries comeback. "Droughts do have numerous positive biological aspects, though they may not be readily apparent to the public at the time," Holcomb says.

During drought conditions, organic bottom muds dry out and compact, providing new spawning areas upon reflooding. Mats of nuisance vegetation also dry up and decompose upon exposure to sunlight.

Another positive side is that, as water levels recede, baitfish are forced into open waters, becoming concentrated and more available to foraging game fish whose body condition is thereby improved and growth accelerated.

And during the dry weather bass and panfish become more accessible to fishermen since the fish concentrate in receding waters.

"However, as reflooding proceeds we will not immediately see the real positives of the drought conditions," Holcomb says. "There will be greatly expanded areas to fish where the bottom has dried, providing a marked improvement for spawning of

bass and panfish," he explains.

Holcomb said that reflooding also stimulates the regrowth of desirable aquatic vegetation required as food and cover for fish-food organisms such as insects, shrimp and crayfish.

"These reflooded areas will also provide increased food, cover and nursery areas for forage fish like shad and shiners, thereby expanding the food web for game fish," he adds.

Another important point is that water quality in lakes, rivers, ponds and streams will improve as pollutants are diluted.

"And, of course, those docks and boat ramps that might not have been available for use because of the low water levels will be used again by fishermen," he explains, adding that fish camps and bait and tackle stores affected by the drought should expect increased business in the coming years.

Florida's panfish—such as shellcracker, bluegill, redbreast sunfish and stumpknockers—spawn from April through October and are already taking advantage of expanded areas due to higher water levels.

"Florida's popular largemouth bass will spawn in greater numbers this spring and produce more young that will survive to harvestable size."

Droughts and floods are part of the natural climatic cycle in Florida. "Florida fish populations have evolved under such conditions and respond favorably to both falling and rising water levels, but unfavorably to unnatural static levels. Where man artificially controls water levels, the practice of drawing lakes down is a successful fisheries management tool which duplicates the beneficial results of natural drought and reflooding."

Holcomb says he is glad to see the increase in fishing opportunities for a variety of reasons. Benefits to the fishing public from periodic natural rise and fall of water levels are large in terms of family recreation, food, and tourist dollars, and can be long-lasting. —Ron Stock □

# CONSERVATION SCENE



Bobwhite Quail

Wallace Hughes

## Quail Study Findings

Quail can detect people at least as far as 200 yards away, according to Dr. LorVel Shields, quail researcher at Tall Timbers Research Station in Leon County. He also suspects that failure of dogs to scent birds is not because of the absence of scent, but rather because of a confusing multiplicity of odors. ■

## Cottonmouth Facts

David Cook, studying the cottonmouth as a thesis project for an advanced degree at the University of Florida, is turning up some interesting facts regarding the species. Thus far determined: cottonmouths eat a variety of animals including frogs, mice, rats, salamanders, slugs and birds, while the diamondback eats only warm-blooded prey. The cottonmouth spends a large part of its time far from the water. It appears to be most active at night, possibly because of the nocturnal activity of its prey. ■

## "Common Sense" Endangered Species Act Passed

In spite of those who said "it couldn't be done," the nation's sportsmen have won a major victory in the campaign to bring common sense to the Endangered Species Act, America's program of extending protection to plant and animal species whose survival is jeopardized.

In late September, the U.S. Senate and U.S. House of Representatives passed the Endangered Species Act reauthorization bill containing all the "Common Sense Amendments" offered by The Wildlife Legislative Fund of America. The amendments give sportsmen and wildlife management professionals greater representation under the Act. The reauthorization bill was signed into law in early October by President Reagan.

It was the thousands of letters and telephone calls to members of Congress by the nation's sportsmen, wildlife managers, fur interests and other conservationists that ensured passage of the amendments.

"I do not recall when sportsmen have demonstrated more effective political clout in this town," said G. Ray Arnett, assistant secretary for Fish and Wildlife and Parks, U.S. Department of the Interior.

"It was amazing," said Assistant Senate Majority Leader Senator Ted Stevens (R-AK). "Sportsmen would call a member's office to get his vote on one amendment and call back a second time to get his vote on another. They didn't want just one, they wanted them all!"

According to James H. Glass, president of The Wildlife Legislative Fund of America, the key to winning the campaign to amend the ESA was the support provided by hundreds of thousands of sportsmen and sportsmen's clubs across the nation and the outdoor press.

"The WLFA served as the organizer in the campaign," said Glass. "We mailed packages to several thousand sportsmen's clubs and outdoor writers and made telephone follow-up with many of them in key states and key congressional districts."

Glass said sportsmen immediately began organizing letter-writing campaigns and setting up telephone banks. Some even arranged meetings with their senators and representatives. Outdoor writers, he said, called on readers across the nation to write and telephone Washington to support the Common Sense Amendments to the ESA.

The Endangered Species Act, reauthorized for three years, contains Common Sense Amendments to:

1. Remove language which inferred that sport hunting, trapping and fishing are causes of wildlife endangerment.
2. Set up a legal mechanism by which state wildlife agencies will have more input in decisions to list or delist species in the ESA.
3. Overturn the dangerous federal court decision in the "bobcat suit." This case threatened sportsmen and wildlife agencies and could have provided legal precedent usable in subsequent cases to outlaw hunting, trapping and fishing for a wide range of game. ■

## 'Glades Deer

During the Everglades deer controversy last July, animal protectionists were given the opportunity to try and live-capture deer from an area north of Alligator Alley in Conservation Area 3A of the Everglades. As reported in the November-December issue of *Florida Wildlife*, they were only

able to remove 18 alive out of the 100 they had pledged they could.

Biologists with the Commission's Division of Wildlife have been monitoring the condition of the captured deer since then. As of November 11, only six fawns remained alive. The fawns are at the farm of Jack Kasewitz Jr., in Miami. Two are still being bottled-fed goat's milk. The other four have adapted to sweet feed, alfalfa

and protein/vitamin mix. The likelihood of these deer surviving again in the wild is slim.

Of the nine deer that were taken from the Everglades and released in the semi-wild conditions at Lion Country Safari, none remain alive. Biologists report this substantiates their belief that deer from the Everglades can not be relocated on ranges to which they are not accustomed. ■

## Flooding Of Gopher Tortoise Burrows May Be Beneficial

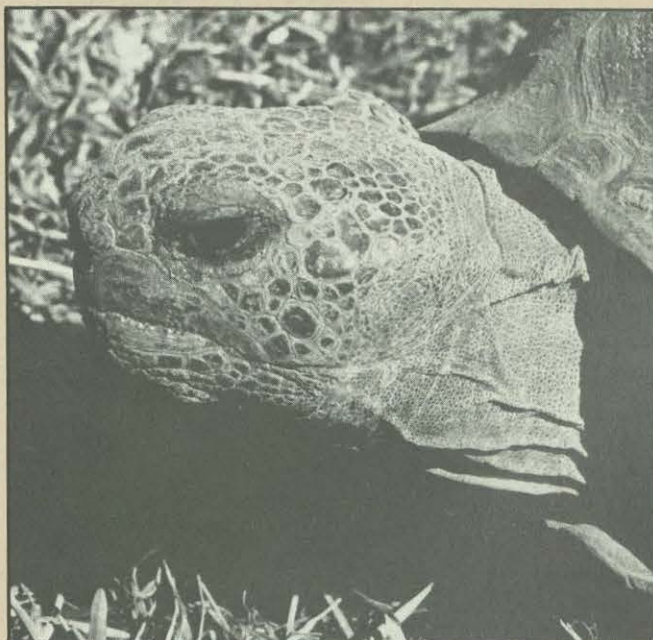
How does the gopher tortoise fare when his burrow home is flooded in winter? Apparently very well, according to observations made over a four-year period by Dr. Bruce Means, director of Tall Timbers Research Station near Tallahassee.

The tortoise is well-known in the Southeast because its burrow also is the home of many other animals, including the diamondback rattlesnake, pine snake, indigo snake, gopher frog and many insects.

Dr. Means and J.B. Atkinson, also of Tall Timbers, made more than 2,860 observations in burrows.

The Burrow

Gene Smith



The Gopher

Wallace Hughes

"When water was observed in burrows," the research station head said, "tortoises usually were in them. Seventy percent of the time that tortoises were seen immersed in water in burrows, they were either completely submerged or had no more than just their heads and front limbs exposed to the air."

The study showed that the gopher may have become secondarily adapted to water in burrows, since flooding always is possible. If the tortoise was intolerant of water, it would be forced into harsh winter temperatures. Besides, it was pointed out, the animal, if stranded on the ground, would be vulnerable to predators.

The study by Dr. Means supports a hypothesis that tortoises seek burrows in moderately moist soil "to gain some benefit from increased burrow moisture during winter. The evidence," concluded Dr. Means, "hints that burrow flooding may be beneficial." ■

# 1982 Wild Turkey Stamp

"Autumn Monarch-Wild Turkey," by Robert K. Abbet, is the warm fall design reproduced on the 1982 Wild Turkey Stamp issued by the National Wild Turkey Federation, Inc.

The stamp is the seventh in a series of limited editions offered to sportsmen and collectors to

fund the wild turkey research educational programs of the 30,000-member nonprofit conservation organization.

Only 50,000 stamps will be issued, a modest number in collecting circles, and they are available from the Federation's Turkey Center, Edgefield, S.C. ■

## Scouts Help

Boy Scouts from Troop 721 of Lakeland recently took a Saturday to help the Game & Fresh Water Fish Commission clean up the Green Swamp Wildlife Management Area. Supervised by Management Specialist Paul Elliot, the enthusiastic group walked the roads and campgrounds picking up cans, paper and other debris cast off by thoughtless visitors. ■

## Big Catfish

A three-pound catfish is something to be proud of, but when James Bradley Jr. caught a 16 pound 4 ounce flathead catfish from the Apalachicola River he was ecstatic. Bradley, of Delwood, caught the fish from a turbine outlet at the Jim Woodruff Dam near Chattahoochee. Using live shad for bait, Bradley caught 15 small channel catfish before landing the "big one."

## Snook Fishing Prohibited

Snook fishing will again be prohibited during January and February under action recently taken by the Governor and Cabinet.

The emergency order was called for the second year in a row because the snook population continues to decline. Biologists with the DNR told the Governor and Cabinet that snook are most vulnerable to fishermen's efforts during January and February. The restriction is necessary to avoid serious inroads into the declining population. ■

Although the catch is notable, it will not enter the record books due to Commission policy recognizing only those species more commonly taken in the state. ■



### FLORIDA WILDLIFE STAFF

Morrie Naggiar, Editor  
Wallace Hughes, Art Director • Trisha Spillan, Assistant Editor  
Caroline Claiborne, Production Coordinator • Pam Stephens, Circulation Manager  
William Greer, Contributing Photographer

This public document was promulgated at a cost of \$27,612, or \$1.04 per copy, to provide information regarding wildlife resources of the state.

Income from subscriptions defrays a substantial portion of the above listed cost of magazine production.

## STATE OF FLORIDA GAME & FRESH WATER FISH COMMISSION

### Commissioners

C. TOM RAINEY D.V.M.  
Chairman  
Miami  
WILLIAM G. BOSTICK JR.  
Vice-Chairman  
Winter Haven  
CECIL C. BAILEY  
Jacksonville  
THOMAS L. HIRES SR.  
Tampa  
W.D. "Don" BAXTER  
Marianna

### Administration

ROBERT M. BRANTLY  
Executive Director  
620 S. Meridian St.  
Tallahassee, Florida 32301  
(904) 488-1960  
F.G. BANKS  
Assistant Executive Director  
WILLIAM C. SUMNER, Director  
Division of Administrative Services  
BRANTLEY GOODSON, Director  
Division of Law Enforcement  
FRED W. STANBERRY, Director  
Division of Wildlife  
SMOKIE HOLCOMB, Director  
Division of Fisheries  
BRADLEY J. HARTMAN, Director  
Environmental Services  
KENNETH L. STIVERS, Director  
Informational Services

### Regional Offices

Northwest Region  
T.L. GARRISON, Manager  
Route 4, Box 759  
Panama City, FL 32405  
(904) 265-3676  
Northeast Region  
LARRY MARTIN, Manager  
Route 7, Box 102  
Lake City, FL 32055  
(904) 752-0353  
Central Region  
WILLIAM H. KING, Manager  
1239 S.W. 10th St.  
Ocala, FL 32670  
(904) 629-8162  
South Region  
J.O. BROWN, Manager  
2202 Lakeland Hills Blvd.  
Lakeland, FL 33801  
(813) 686-8157  
Everglades Region  
O.G. KELLEY, Manager  
551 North Military Trail  
West Palm Beach, FL 33406  
(305) 683-0748

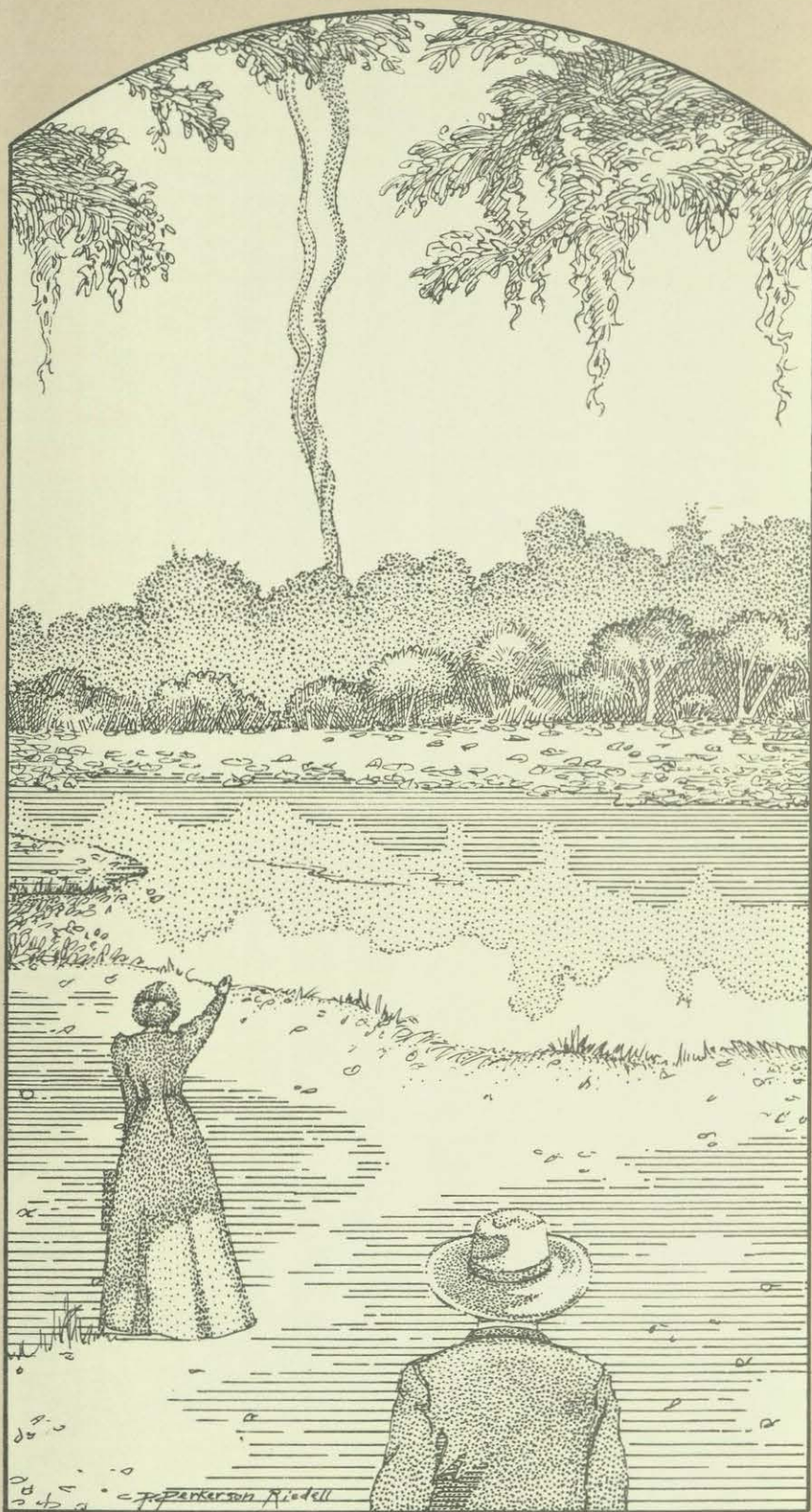
# Floridana

At least as far back as the 1830s, a conspicuous feature of the wilderness southeast of Tallahassee was the mysterious plume of smoke that rose, year in and year out, from the watery jungle of the Wacissa Swamp. Local Indians said the smoke had always been there. Some white residents thought it came from Indian campfires. Others guessed it marked a settlement of runaway slaves, the camp of pirates and smugglers, or the grandpappy of all whiskey stills. But as the years rolled by and the smoke continued to rise unfailingly, it began to appear unlikely that any of these could be the source.

The appearance of the smoke column was variable. Sometimes it rose straight into the sky, but often it swirled and spiraled aloft. Occasionally it died to a mere wisp or haze. Sometimes it was inky black, at other times it was gray or white.

The obvious question arises; why didn't someone solve the mystery by investigating the smoke? It should be remembered that at that time, travel in the Florida swamps, besides being difficult, could be extremely dangerous. Many an area resident who saw the smoke from the Wacissa Volcano, as some began calling the mysterious plume, had also seen raiding parties of Seminoles and had no intention of blundering into what might possibly be an encampment of these fierce warriors. So the speculation regarding the smoke continued down through the years.

In 1886, the Tallahassee area was rocked by an earthquake whose tremors were felt over a wide area of the Southeast. When the terrifying tremors stopped, all eyes turned southeastward to the smoke; but it was gone. For the first time in at least a half-century the sky was perfectly clear. The smoke was never seen again. Despite several attempts, the source—Florida's "lost volcano"—has never been pinpointed. [Extracted from an article by Wilfred T. Neill, *Florida Wildlife*, June 1963.]



Peggy Perkerson Riedell

## WACISSA VOLCANO



Marsh Rabbit

Cliff Bickford

323040187FW05026611 #0019999  
STATE LIBRARY FLA  
SERIALS SECTION  
R A GRAY BLDG  
TALLAHASSEE

FL 32304